TSD File Inventory Index

Date: September 5, 2008

Initial: CMcKenzie

Facility Name: Exelon Corporate LLC (Braidwood Nuclear Power Station - Dresden Site)

Facility Identification Number: ILD 000 806 505

A.1 General Correspondence		**B.2 Permit Docket (B.1.2)**	X
A.2 Part A / Interim Status		.1 Correspondence	X
.1 Correspondence	X	.2 All Other Permitting Documents (Not Part of the ARA)	
.2 Notification and Acknowledgment	X	**C.1 Compliance - (Inspection Reports)**	
.3 Part A Application and Amendments	X	**C.2 Compliance/Enforcement**	X
.4 Financial Insurance (Sudden, Non Sudden)		.1 Land Disposal Restriction Notifications	
.5 Change Under Interim Status Requests		.2 Import/Export Notifications	
.6 Annual and Biennial Reports		**C.3 FOIA Exemptions - Non-Releasable Documents**	
A.3 Groundwater Monitoring		**D.1 Corrective Action/Facility Assessment**	X
.1 Correspondence		.1 RFA Correspondence	
.2 Reports		.2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure		.3 State Prelim. Investigation Memos	
.1 Correspondence		.4 RFA Reports	X
.2 Closure/Post Closure Plans, Certificates, etc		**D. 2 Corrective Action/Facility Investigation**	X
A.5 Ambient Air Monitoring		.1 RFI Correspondence	
.1 Correspondence		.2 RFI Workplan	
.2 Reports		.3 RFI Program Reports and Oversight	
B.1 Administrative Record		.4 RFI Draft /Final Report	
		5. RFI QAPP	

Total - 4

.6 RFI QAPP Correspondence		.8 Progress Reports	
.7 Lab Data, Soil-Sampling/Groundwater		**D.5 Corrective Action/Enforcement**	
.8 RFI Progress Reports		.1 Administrative Record 3008(h) Order	
.9 Interim Measures Correspondence		.2 Other Non-AR Documents	
.10 Interim Measures Workplan and Reports		**D.6 Environmental Indicator Determinations**	
D.3 Corrective Action/Remediation Study		.1 Forms/Checklists	
.1 CMS Correspondence		**E. Boilers and Industrial Furnaces (BIF)**	
.2 Interim Measures		.1 Correspondence	
.3 CMS Workplan		.2 Reports	
.4 CMS Draft/Final Report		**F Imagery/Special Studies** (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	
.5 Stabilization		**G.1 Risk Assessment**	
.6 CMS Progress Reports		.1 Human/Ecological Assessment	
.7 Lab Data, Soil-Sampling/Groundwater		.2 Compliance and Enforcement	
D.4 Corrective Action Remediation Implementation		.3 Enforcement Confidential	
.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
.3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
.4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
.6 CMI QAPP Correspondence		.9 Environmental Justice	
1.			

Note: Transmittal Letter to Be Included with Reports.
Comments: Ow, fulderseite

SEP 28 1982

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
RCRA ACTIVITIES

HEMMINGER THOS DIR WATER QUAL
COMMONWEALTH EDISON CO BRAIDWOOD G*
PO BOX 767 ROOM 1700E
CHICAGO IL 60690
FACILITY: DIVISION STREET RD
LOCATION: BRACEVILLE IL 60407
ID NO.: ILD000806505

RE: TSD Notification without Part A Application

Dear Notifier:

The United States Environmental Protection Agency (U.S. EPA) has received your notification of hazardous waste activity. On that form, by checking the "treat/store/dispose" (TSD) box, you indicated that you are a hazardous waste management facility (HWMF). To date, however, we have no record of having received Part A application for a hazardous waste permit which is required for all HWMFs.

Federal regulations require owners and operators of existing HWMFs (installations which treat, store, or dispose of hazardous waste) to have submitted a Part A permit application to the Regional Administrator by November 19, 1980, in accordance with 40 CFR 122.22. This requirement applied to HWMFs which were in existence on or before November 19, 1980. New facilities (those established after November 19, 1980) are required to submit Part A and Part B of their permit application, and receive a Resource Conservation and Recovery Act (RCRA) permit before beginning physical construction.

If your facility treats, stores, or disposes of hazardous waste, then your facility is operating without a hazardous waste permit, in violation of Section 3005 of RCRA, as amended. This violation is considered serious by the U.S. EPA, and may subject you to Federal enforcement under Section 3008 of RCRA for past and continued non-compliance.

Please submit your completed Part A application to the address below within fifteen days of receipt of this letter:

RCRA ACTIVITIES
P. O. Box A3587
Chicago, Illinois 60690-3587

We are aware that some hazardous waste handlers may have marked the TSD box on the notification form as a precaution or as a result of misunderstanding the May 19, 1980, hazardous waste regulations. If you notified us as a TSD in error, or if your status as a treatment, storage, or disposal facility has changed, please advise us in writing immediately.

Please contact Arthur Kawatachi of my staff at (312) 353-2197, if you have any questions regarding this letter.

Sincerely yours,

William H Mines Jr

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Com nweall lison
72 W. da Street, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

October 4, 1982

RCRA Activities
P.O. Box A3587
Chicago, Illinois 60690-3587
Attn: Karl J. Klepitsch, Chief
Waste Management Branch

Subject: Improper Notification of TSD Activity
Facility I.D. Number: ILD 000806505

Dear Mr. Klepitsch:

In response to your letter of September 28, 1982 we wish to inform you that Commonwealth Edison's Braidwood Station in Braceville, Illinois, U.S. EPA's Facility I.D. Number ILD 000806505 is not in fact a hazardous waste treatment, storage or disposal (TSD) facility. This facility was erroneously identified as a TSD facility on this facility's notification of hazardous waste activity. Because this facility is not a TSD, we will not be submitting a Part A application.

Should you have any questions regarding this matter, please call Angela Jankousky of my staff at 312/294-4458.

Sincerely,

Thomas E. Hemminger

Thomas E. Hemminger
Director of Water Quality

0599E
ALJ:TEH:pp

US EPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Refer to: 0630050001 -- Grundy County
Commonwealth Edison -- Braidwood Nuclear Power Station
ILD000806505
RCRA Permits
Log No. A-421
Date Received: October 31, 1990

December 19, 1990

Commonwealth Edison
ATTN: Mr. Thomas B. Hemminger
Post Office Box 767
Chicago, Illinois 60690-0767

Dear Mr. Hemminger:

This letter acknowledges receipt of Part A of the RCRA permit application which was submitted for the Commonwealth Edison, Braidwood Nuclear Power Station located east of Route 53, 1.5 miles south of Route 113, near Braidwood, Illinois. Based upon a review of this application, IEPA has determined that the subject facility qualifies for "interim status", as the requirements of 35 IAC 703.153 have been met. Thus, certain "mixed waste" (wastes which are both hazardous and radioactive) may be stored on-site for time periods longer than 90 days in accordance with the following requirements:

1. A maximum of 2200 gallons of waste may be stored in containers in the container storage area (S01) shown in Attachment 3 of the application (referred to as the "Mixed Waste Storage Location").

2. Only those mixed wastes which carry the EPA Hazardous Waste No. F001 may be stored in the container storage area identified in Item 1 above;

3. Management and storage of mixed wastes at this facility must be carried out in accordance with 35 IAC 702, 703, 705, 721, 722 and 725. This includes the financial assurance requirements of 35 IAC 725, Subpart H.

4. According to discussions with Judy Freitag, Commonwealth Edison will only store mixed waste in the area identified in Item 1 above for time periods longer than 90 days. Therefore, only wastes which are both radioactive and RCRA hazardous may be stored for time periods longer than 90 days in this area. Wastes which are RCRA hazardous but not radioactive shall be managed in accordance with the requirements of 35 IAC 722.

As specified in 35 IAC 703.150(b), IEPA will in the future request that Part B of the RCRA permit application be submitted for review and approval. At that time, Commonwealth Edison will have six (6) months (minimum) to submit the

application. Once received, the IEPA will begin reviewing this application in accordance with the procedures set forth in 35 IAC 705. Until such time as final action is taken on the Part B application, operation of the mixed waste container storage area at this facility will remain subject to the requirements of 35 IAC 725.

If you have any questions regarding this letter, please contact Jim Moore of my staff at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:JKM:lab/4101n, 8-9

cc: Division File
Maywood Region
USEPA, Region V -- Art Kawatachi
USEPA, Region V -- George Hamper
USEPA, Region V -- Mary Murphy
Planning and Reporting Section
Glenn Savage
Gary King
Division of Legal Counsel
IDNS, Joe Klinger

Common alth Edison
72 West Ada... Street, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690 - 0767

October 31, 1990

HAND DELIVERED

George Hamper
Chief, Il RCRA Section
Mail Code 58R-13
U. S. Environmental Protection Agency, Region V
Post Office Box 7861
230 South Dearborn
Chicago, Illinois 60604

Subject: Part A of the RCRA Permit Application
for the Mixed Waste Storage Units
at Commonwealth Edison Company
Nuclear Power Stations

Dear Mr. Hamper:

Low-level radioactive waste which is also a "hazardous" waste as defined by the Resource Conservation and Recovery Act (RCRA) is considered "mixed waste". Currently, no permitted waste disposal site accepts mixed waste. Therefore, mixed waste which has been generated by Commonwealth Edison's six nuclear power stations must be stored on site until an off-site disposal facility becomes available. Storing mixed waste on site for longer than 90 days will subject these stations to the interim status storage requirements of 35 IAC 725 (40 CFR 265).

In accordance with the RCRA interim status requirements, Commonwealth Edison Company hereby submits a copy of Part A of the RCRA permit application for each of the facilities listed below:

- Braidwood Nuclear Power Station ILD000806505 ✓
- Byron Nuclear Power Station ILD000806521 ✓
- Dresden Nuclear Power Station ILD000665489 ✓
- LaSalle County Nuclear Power Station ILD000803643 ✓
- Quad Cities Nuclear Power Station ILD060862810 ✓
- Zion Nuclear Power Station ILD010217156 ✓ — delete 303

Should you have any questions concerning the information provided, please contact Judy Freitag at 312/294-3016.

Sincerely,

Thomas E Hemminger

Thomas E. Hemminger
Environmental Services Manager

9144e
JAF:TEH:ssp

cc: J. A. Freitag
B. M. McCann

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

Please refer to Section V Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

DEC 26 2000

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

[ ] A. Initial Notification [X] B. Subsequent Notification (Complete item C)

C. Installation's EPA ID Number: ILD000806505

II. Name of Installation (Include company and specific site name)

BRAIDWOOD STATION

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street: address update

EAST OF IL RTE 53

Street (Continued)

1.5 MILE SOUTH OF IL RTE 113

City or Town: BRAIDWOOD | State: IL | Zip Code: 60408-

County Code: 197 | County Name: WILL

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

RR1 Box 84

JAN 17 2001

City or Town: BRACEVILLE | State: IL | Zip Code: 60407-9619

RECORDS ROOM
Water, Pesticides & Waste Division

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last): SCHRAMER | (First): BRENT

Job Title: CHEMISTRY MGR | Phone Number (Area Code and Number): 815-458-2801

VI. Installation Contact Address (See instructions)

RECEIVED
DEC 19 2000
IEPA-DLPC

A. Contact Address Location [ ] Mailing [X]

B. Street or P.O. Box

City or Town | State | Zip Code

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

EXELON GENERATION COMPANY LLC

Street, P.O. Box, or Route Number

1400 OPUS PLACE SUITE 900

City or Town: DOWNERS GROVE | State: IL | Zip Code: 60515-5701

Phone Number (Area Code and Number): 630-663-5128

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [X] No [ ]

Date Changed: Month 01 Day 01 Year 2001

EPA Form 8700-12 (Rev. 12/99)

1/12/01

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activities

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Exempt Boiler and/or Industrial Furnace
   - ☐ a. Smelting, Melting, and Refining Furnace Exemption
   - ☐ b. Small Quantity On-Site Burner Exemption

☐ 5. Underground Injection Control

B. Universal Waste Activity

☐ Large Quantity Handler of Universal Waste

C. Used Oil Management Activities

1. Used Oil Transporter/Transfer Facility - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
2. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Processor
   - ☐ b. Re-refiner

☐ 3. Off-Specification Used Oil Burner

4. Used Oil Fuel Marketer
   - ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Used Oil Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
F001	F002	F003	F004	F005	U133
7	8	9	10	11	12

B. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24; See instructions if you need to list more than 4 toxicity characteristic waste codes.)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s)) 1	2	3	4
X	X	X	X	D006	D007	D008	D009

C. Other Wastes. *(State-regulated or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accord ance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inqui ry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the informati on submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant pena lties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
R.M. Krich	R.M. KRICH DIRECTOR LICENSING	12/10/00

XI. Comments

ILD000806505

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section IV of the booklet for addresses.)*

RECEIVED
JAN 17 2001
RCRA RECORDS ROOM
Waste, Pesticides & Toxics Division
U.S. EPA — REGION 5

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID: For Official Use Only

IX. Description of Hazardous Wastes *(Continued; Additional Sheet)*

A. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)*

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96

B. Toxicity Characteristic Hazardous Wastes. *(See 40 CFR 261.24; Use this page only if you need to list more than 4 waste codes.)*

5	6	7	8	9	10
D018	D027	D028	D029	D034	D039
11	12	13	14	15	16
17	18	19	20	21	22

RECEIVED
JAN 17 2001
RCRA RECORDS ROOM
Waste, Pesticides & Toxics Division
U.S. EPA — REGION 5

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ ILD000806505 REACKNOWLEDGEMENT

COMMONWEALTH EDISON CO BRACEVILLE GEN ST
PO BOX 767 ROOM 1700E
CHICAGO IL 60690

INSTALLATION ADDRESS ➤ DIVISION STREET RD
BRACEVILLE IL 60407

EPA Form 8700-12B (4-80)

08/14/81

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ ILD000806505 REACKNOWLEDGEMENT

COMMONWEALTH EDISON CO BRAINWOOD GEN STA
PO BOX 767 ROOM 1700E
CHICAGO IL 60690

INSTALLATION ADDRESS ➤ DIVISION STREET RD
BRACEVILLE IL 60407

EPA Form 8700-12B (4-80)

09/28/81

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only. GSA No. 0246-EPA-OT

EPA — U.S. ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act)*.

INSTALLATION'S EPA I.D. NO.

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

III. LOCATION OF INSTALLATION

PLEASE PLACE LABEL IN THIS SPACE

001108 AUG 25 80

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER: S F ILD000806505 T/A 2 C 1 — APPROVED: A — DATE RECEIVED (yr., mo., & day): 80 08 18

Commonwealth Edison Co Braidwood Gen.

I. NAME OF INSTALLATION

BRAIDWOOD GENERATING STATION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 PO BOX 767, ROOM 1700E

CITY OR TOWN: 4 CHICAGO — ST.: IL — ZIP CODE: 60690

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 DIVISION STREET RD

CITY OR TOWN: 6 BRACEVILLE — ST.: IL — ZIP CODE: 60407

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 2 HEMMINGER THOMAS

PHONE NO. *(area code & no.)*: 312-294-4433

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 COMMONWEALTH EDISON COMPANY

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*: M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.: ILD000806505

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

AUG 20 1980

CONTINUE ON REVERSE

I.D. – FOR OFFICIAL USE ONLY

S													T/A	C
W	1	4	0	0	3	2	2	6	5	5			2	1
1	2											13	14	15

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F001	F002				
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☒ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
J. W. Johnson	J. W. Johnson Vice President	8/14/80

Commonwealth Edison
72 West Adams Street, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

August 15, 1980

CERTIFIED MAIL

USEPA - Region V
RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Subject: Notification of Hazardous Waste Activity

Dear Sirs:

Commonwealth Edison Company hereby submits notification of hazardous waste activity for thirteen operating generating stations, three generating stations under construction and the Maywood Technical Center, as required by Section 3010 of the Resource Conservation and Recovery Act (RCRA).

If there are any questions concerning the notification, please contact me at 312/294-4433.

Sincerely,

Thomas E. Hemminger

Thomas E. Hemminger
Director of Water Quality

SKW:TEH:ds
Enclosures (17)

BRAIDWOOD NUCLEAR POWER STATION
Mixed Waste Storage Facility

Resource Conservation and Recovery Act

INTERIM STATUS PERMIT APPLICATION

Submitted

to the

Illinois Environmental Protection Agency

on

November 1, 1990

prepared by

Commonwealth Edison Company
Environmental Services Department
P.O. BOX 767, CHICAGO ILLINOIS 60690-0767

TABLE OF CONTENTS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

217/524-3300

March 26, 2004

Exelon Generation Company LLC
Attn: Mr. Keith Jury
Director Licensing and Regulatory Affairs
4300 Winfield Road
Warren, Illinois 60555

Re: 1970155012 -- Will County
Exelon - Braidwood Nuclear Power Station
ILD000806505
Log No. PS02-170
Received: July 24, 2002 and November 19, 2002
RCRA Permit File

Dear Mr. Jury:

Based on a review of information previously submitted to the Illinois EPA, the hazardous waste management unit subject to RCRA regulation at the above-referenced facility is the hazardous waste container storage (S01) area known as the "Mixed Waste Storage Facility". Exelon's Braidwood Nuclear Power Station (Braidwood Station) has a Part A application and has been operating under interim status for the purpose of storing mixed waste while disposal outlets were identified.

This is in response to two separate letters regarding Exelon Generation Company LLC's request for conditional exemption for Low-Level Mixed Waste (LLMW) Storage, Treatment, Transportation and Disposal in accordance with 40 CFR 266, Subpart N (35 Ill. Adm. Code 726, Subpart N) at the above-referenced facility. The contents of the subject submittals can be summarized as follows:

- **Letter from Tom P. Joyce on behalf of the above-referenced facility (Braidwood Station) dated July 18, 2002 and received July 24, 2002 by the Illinois EPA.**

  Letter requested conditional exemption for waste codes D001, D002, F001, F002, F005 and D008. Letter stated that "We are currently in compliance with Title 35 Illinois Administrative Code Part 726, Subpart N." In addition, letter requested that the Illinois EPA "...provide instruction on the protocol for relinquishing the Part A Interim Status."

- **Submittal from Dave Wozniak of Exelon Generation dated November 14, 2002 and received November 19, 2002.**

  Letter contains support documentation for Exelon's contention that attachment of drum heaters to LLMW drums for treatment by heating (drying) drum contents is not intended to be regulated under RCRA. In addition, the letter states that "...RCRA container storage locations have not been utilized in the past for the storage of hazardous wastes for periods exceeding 90 days."

Based on a review of the subject submittals, it appears that Exelon's Braidwood Station has met the requirements of 35 Ill. Adm. Code 726.320 – Storage and Treatment Conditional Exemption; 35 Ill. Adm. Code 726.325 – Wastes Eligible for a Storage and Treatment Conditional Exemption for Low-Level Mixed Waste; 35 Ill. Adm. Code 726.330 – Conditions to Qualify for and Maintain a Storage and Treatment Conditional Exemption and 35 Ill. Adm. Code 726.335 – Treatment Allowed by a Storage and Treatment Conditional Exemption (the proposal to treat waste in containers by attaching drum heaters to the LLMW containers appears to be consistent with the types of treatment NRC currently allows in a tank or container). Likewise, it appears that in accordance with 35 Ill. Adm. Code 726.360 – Applicability of Closure Requirements to Storage Units, the "Mixed Waste Storage Facility" is not subject to the closure requirements of 35 Ill. Adm. Code 725. As such, Exelon's Braidwood Station is exempt from RCRA storage and treatment requirements as long as the waste is generated under a single Nuclear Regulatory Commission (NRC) license, meets the applicable conditions specified in 35 Ill. Adm. Code 726 Subpart N, and is stored and treated in a tank or container.

In addition, Exelon Braidwood Station's LLMW, identified as D001, D002, F001, F002, F005 and D008, which meet applicable treatment standards identified in 35 Ill. Adm. Code 726 Subpart N, may be conditionally exempt from RCRA transportation and disposal requirements. This waste may be disposed of at low-level radioactive waste disposal facilities which are licensed by NRC. 35 Ill. Adm. Code 726 Subpart N also provides additional flexibility for manifesting these wastes when they are destined for disposal at such facilities. Although mixed waste meeting the applicable conditions is exempt from certain RCRA requirements, it must still be managed as radioactive waste according to NRC regulations.

As long as Exelon's Braidwood Station is in compliance with the conditions specified in 35 Ill. Adm. Code 726 Subpart N, the LLMWs identified as D001, D002, F001, F002, F005 and D008 are eligible for conditional exemption from RCRA regulations for Storage, Treatment, Transportation and Disposal.

Please be advised that should Exelon's Braidwood Station fail to meet any of the conditions specified in 35 Ill. Adm. Code 726.330, it will automatically lose it's storage and treatment conditional exemption and be subject to the conditions specified in 35 Ill. Adm. Code 726.340 (i.e., waste that failed conditions must be managed as a RCRA hazardous waste and the storage unit storing the LLMW becomes subject to RCRA hazardous waste container storage requirements.). Procedures for reclaiming a lost storage and treatment conditional exemption are specified in 35 Ill. Adm. Code 726.345.

Likewise, should Exelon's Braidwood Station fail to meet any of the conditions specified in 35 Ill. Adm. Code 726.415, it will automatically lose it's transportation and disposal conditional exemption and be subject to the conditions specified in 35 Ill. Adm. Code 726.455. Procedures for reclaiming a lost transportation and disposal conditional exemption are specified in 35 Ill. Adm. Code 726.460.

In summary, to maintain the conditional exemptions for storage, treatment, transportation and disposal of its LLMW, Exelon's Braidwood Station must continue to meet the requirements set forth in 35 Ill. Adm. Code 726 Subpart N. In addition, Exelon's Braidwood Station must comply with the requirements of 35 Ill. Adm. Codes 726.350, 726.355, 726.415, 726.420, 726.425, 726.430, 726.435, 726.440, 726.445 and 726.450.

Should you have any questions concerning this matter, please feel free to contact John Riekstins of my staff at 217/524-3309.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:JR/mls/042844s.doc
JR, ESS

cc: USEPA Region V -- Harriet Croke
Kevin K. Hersey -- Exelon

A 499 -
A 500

Commonwealth Edison Company
125 South Clark St
P.O. Box 767
Chicago, IL 60690-0767

cc: Peci..
Maywood
...
USEPA

WE

RECEIVED
AUG 11 1997
IEPA-DOL
PERMIT SECTION

ComEd

August 5, 1997

Mr. Jerry Kuhn
Illinois Environmental Protection Agency
Bureau of Land, Division of Land Pollution Control
Permits Section
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Subject: Copy of RCRA Facility Plan for ComEd's Quad Cities Station and Revised Permit Applications for ComEd Mixed Waste Facilities

Reference: Illinois EPA Log No. A-425

Dear Mr. Kuhn:

As requested, Commonwealth Edison (ComEd) is submitting a copy of the RCRA Facility Plan for Quad Cities Station for the Agency's records. Also enclosed are revised permit applications for all six ComEd mixed waste storage facilities.

Please note that the application for Zion Station (IEPA Log No. A-426) contains additional waste codes. The original waste code F001 was assigned using process knowledge of the waste in storage. Subsequent laboratory analysis has determined that additional waste codes apply to this same waste.

If you have any questions or comments regarding this submittal, please call me at (312) 394-4453.

Sincerely,

Grayce Majewski

Grayce Majewski
Principal Environmental Engineer
Environmental Services Department

Approval: Brian McCann

GLM:bg\31-qperm.doc

1500

cc: Maywood USEP

Form Approved, OMB No. 2050-0034 Expires 9-30-96
GSA No. 0248-EPA-OT

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For EPA Regional Use Only		
Date Received Month Day Year		

United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

RECEIVED
AUG 11 1997
IEPA-BOL
PERMIT SECTION

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Part A Submission

[X] B. Part A Amendment # Log # A-421

C. Installation's EPA ID Number: ILD000806505

D. Secondary ID Number *(If applicable)*:

II. Name of Facility

COMED BRAIDWOOD STATION

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street: EAST OF IL RTE 53

Street *(Continued)*: 1.5 MILES SOUTH OF IL RTE 113

City or Town: BRAIDWOOD

State: IL

Zip Code: 60408 —

County Code *(If known)*:

County Name: WILL

B. Land Type (Enter code): P

C. Geographic Location: *LATITUDE (Degrees, Minutes, & Seconds)*: 41 14 37 *LONGITUDE (Degrees, Minutes & Seconds)*: 088 13 42

D. Facility Existence Date **: Month 11 Day 01 Year 1987

IV. Facility Mailing Address

Street or P.O. Box:

City or Town:

State:

Zip Code: —

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(Last)*:

(First):

Job Title:

Phone Number *(Area Code and Number)*: — —

VI. Facility Contact Address *(See instructions)*

A. Contact Address Location [ ] Mailing [ ] Other [ ]

B. Street or P.O. Box:

City or Town:

State:

Zip Code: —

** NOTE: For the existing facility, mixed waste has been controlled at this facility since November 1, 1987. However, mixed waste was not regulated until IEPA received authority on May 1, 1990, effective November 1, 1990.

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Form Approved. OMB No. 2050-0034 Expires 9-30-96
GSA No. 0248-EPA-OT

EPA I.D. Number *(Enter from page 1)*: ILD000806505

Secondary ID Number *(Enter from page 1)*:

VII. Operator Information *(See instructions)*

Name of Operator: COMMONWEALTH EDISON COMPANY

Street or P.O. Box: P O BOX 767 ROOM 35FNW

City or Town: CHICAGO

State: IL

ZIP Code: 60690-0767

Phone Number *(Area Code and Number)*: 312-394-4430

B. Operator Type: P

C. Change of Operator Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

VIII. Facility Owner *(See Instructions)*

A. Name of Facility's Legal Owner: SAME AS ABOVE

Street or P.O. Box:

City or Town:

State:

ZIP Code:

Phone Number *(Area Code and Number)*: -

B. Owner Type: P

C. Change of Owner Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

IX. SIC Codes *(4-digit, in order of significance)*

Primary	Secondary
4911 (Description) ELECTRIC SERVICES	(Description)
Secondary	**Secondary**
(Description)	(Description)

X. Other Environmental Permits *(See instructions)*

A. Permit Type *(Enter code)*	B. Permit Number	C. Description
N	IL0004832 1	NPDES Permit
E	821100555	Air- Radwaste Vol. Reduct Sys.
E	7902001 1	Air- Aux Boilers, Tanks, Diesel Generator
R	LOG NO A-421	RCRA Part A Permit

EPA I.D. Number *(Enter from page 1)*

I	L	D	0	0	0	8	0	6	5	0	5

Secondary ID Number *(Enter from page 1)*

XI. Nature of Business *(Provide a brief description)*

Generation of electricty using nuclear fuel.

XII. Process Codes and Design Capacities

A. **PROCESS CODE** - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.*

B. **PROCESS DESIGN CAPACITY** - *For each code entered in column A, enter the capacity of the process.*
1. **AMOUNT** - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. **UNIT OF MEASURE** - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. **PROCESS TOTAL NUMBER OF UNITS** - *Enter the total number of units used with the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet or Hectare-meter
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day r Liters Per Day
D83	Surface Impoundment	Gallons or Liters
D99	Other Disposal	Any Unit of Measure Listed Below
	Storage:	
S01	Container (Barrel, Drum, Etc.)	Gallons or Liters
S02	Tank	Gallons or Liters
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons or Liters
S05	Drip Pad	Gallons or Liters
S06	Containment Building-Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
	Treatment:	
T01	Tank	Gallons Per Day or Liters Per Day
T02	Surface Impoundment	Gallons Per Day or Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T80	Boiler	Gallons or Liters
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T88	Titanium Dioxide Chloride Process Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR §260.10	
T94	Containment Building-Treatment	Cubic Yards or Cubic Meters
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; or Kilograms Per Hour
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
X04	Geologic Repository	Cubic Yards or Cubic Meters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V

UNIT OF MEASURE	UNIT OF MEASURE CODE
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R

UNIT OF MEASURE	UNIT OF MEASURE CODE
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's Per Hour	I

EPA I.D. Number *(Enter from page 1)*: I L D 0 0 0 8 0 6 5 0 5

Secondary ID Number *(Enter from page 1)*:

XII. Process Codes and Design Capabilities *(Continued)*

EXAMPLE FOR COMPLETING ITEM XII (Shown in line number X-1 below): A facility has a storage tank, which can hold 533,788 gallons.

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. PROCESS DESIGN CAPACITY 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	For Official Use Only
X 1	S 0 2	5 3 3 7 8 8	G	0 0 1	
1	S 0 1	2 2 0 0 . 0 0	G	0 0 1	
2		.			
3		.			
4		.			
5		.			
6		.			
7		.			
8		.			
9		.			
10		.			
11		.			
12		.			
13		.			

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in item XIII.

XIII. Other Processes *(Follow instructions from item XII for D99, S99, T04 and X99 process codes)*

Line Number (Enter #s in seq w/XII)	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. PROCESS DESIGN CAPACITY 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	D. Description Of Process
X 1	T 0 4				In-situ Vitrification
1		.			
2		.			
3		.			
4		.			

EPA I.D. Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
I L D 0 0 0 8 0 6 5 0 5	

XIV. Description of Hazardous Wastes

A. **EPA HAZARDOUS WASTE NUMBER** - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. **ESTIMATED ANNUAL QUANTITY** - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C **UNIT OF MEASURE** - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. **PROCESS CODES:**

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of item XIV-D(1).*
3. *Enter in the space provided on page 7, item XIV-E, the line number and the additional code(s).*

2. **PROCESS DESCRIPTION:** *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS (1) PROCESS CODES (Enter code)	D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X 1	K 0 5 4	900	P	T 0 3 D 8 0	
X 2	D 0 0 2	400	P	T 0 3 D 8 0	
X 3	D 0 0 1	100	P	T 0 3 D 8 0	
X 4	D 0 0 2				Included With Above

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GSA No. 0248-EPA-OT

EPA I.D. Number *(Enter from page 1)*: I L D 0 0 0 8 0 6 5 0 5

Secondary ID Number *(Enter from page 1)*:

XIV. Description of Hazardous Wastes *(Continued)*

Line Number	A. EPA HAZARDOUS WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)	D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	F 0 0 1	7 0 7	p	5 0 1	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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31					
32					
33					

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0034 Expires 9-30-96
GSA No. 0248-EPA-OT

EPA I.D. Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
I L D 0 0 0 8 0 6 5 0 5	

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

Same as previous

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

Same as previous

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

Same as previous

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature: L.O. DelGeorge	Date Signed: 8-6-97
Name and Official Title (Type or print): Louis O. DelGeorge, Vice President	
Owner Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	

XIX. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

Please print or type in the unshaded areas only (fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER: F I L D 0 0 0 8 0 6 5 0 5

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*: C | YR. 87 | MO. 11 | DAY

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN: YR. | MO. | DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR OR GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided: Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C DUP 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G		5				
X-2	T03	20	E		6				
1	S01	2200	G		7				
2					8				
3					9				
4					10				

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

N/A

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous wastes: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
X-1	K054	900	P	T03 D80	
X-2	D002	400	P	T03 D80	
X-3	D001	100	P	T03 D80	
X-4	D002				included with above

Continued from page 2.
NOTE: Photocopy this page bef[illegible]om[illegible]g if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)

1	2	3	4	5	6	7	8	9	10	11	12	13	F/A	C
W	I	L	D	0	0	0	8	0	6	5	0	5		1

FOR OFFICIAL USE ONLY

1	2	F/A	C	
W	DUP		2	DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	F001	707	P		
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

EPA Form 3510-3 (6-80)

CONTINUE ON REVERS

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

NA

EPA I.D. NO. (enter from page 1)

F I L D 0 0 0 8 0 6 5 0 5 T/N C 6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail)*. See Attachment 3

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground-level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail)*. See Attachment 4

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
4 1 ° 1 4 ' 3 7 "	8 8 ° 1 3 ' 4 2 "

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
THOMAS E. HEMMINGER ENVIRONMENTAL SERVICES MGR.	Thomas E Hemminger	10-26-90

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
THOMAS E. HEMMINGER ENVIRONMENTAL SERVICES MGR.	Thomas E Hemminger	10-26-90

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

FORM 1 GENERAL — EPA — U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program
(Read the "General Instructions" before starting.)

Form Approved OMB No. 158-R0175

I. EPA I.D. NUMBER

F ILD000806505 D

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge to waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges to waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge to waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		
F. Do you or will you inject at this facility industrial or municipal **effluent** below the lowermost stratum containing, within one quarter mile of the well bore, **underground sources of drinking water**? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP COMMONWEALTH EDISON BRAIDWOOD STATION

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 T. E. HEMMINGER	312 294 4433

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 P. O. BOX 767

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 CHICAGO	IL	60690

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 EAST OF RT 53 1.5MI S OF 113

B. COUNTY NAME

WILL

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
6 BRAIDWOOD	IL	60408	

EPA Form 3510-1 (6-80)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
4911 (specify) Electric Power Generation	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME

COMMONWEALTH EDISON COMPANY

B. Is the name listed in Item VIII-A also owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)

P (specify)

D. PHONE (area code & no.)

A 312 294 4433

E. STREET OR P.O. BOX

P. O. BOX 767

F. CITY OR TOWN	G. STATE	H. ZIP CODE
CHICAGO	IL	60690

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
N IL0048321	P NA
B. UIC (Underground Injection of Fluids)	**E. OTHER** (specify)
U NA	82110055 (specify) Air Operating Permit
C. RCRA (Hazardous Wastes)	**E. OTHER** (specify) See Attachment 1
R NA	79020011 (specify) Operating

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. See Attachment 2

XII. NATURE OF BUSINESS (provide a brief description)

Generation of Electricity Using Nuclear Fuel

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
T. E. Hemminger Environmental Services Manager	Thomas E Hemminger	10-26-80

COMMENTS FOR OFFICIAL USE ONLY

C

ATTACHMENT 1

COMMONWEALTH EDISON BRAIDWOOD STATION

Part A of RCRA Application Form 1 line x

List of existing environmental permits

Illinois Environmental Protection Agency Water Pollution Control -

Cooling Pond Permit #18012

ATTACHMENT 2

COMMONWEALTH EDISON BRAIDWOOD STATION

Part A of RCRA Application Form 1 line x1

Topographical Map showing:

- The property boundaries of Braidwood Station
- Braidwood Station NPDES discharge points
- All springs and surface water bodies in the area

ATTACHMENT 3

COMMONWEALTH EDISON BRAIDWOOD STATION

Part A of RCRA Application Form 3 Title V

Facility Drawing for Commonwealth Edison Braidwood Station

ATTACHMENT 4

COMMONWEALTH EDISON BRAIDWOOD STATION

Part A of RCRA Application Form 3 line vl

Photographs for Commonwealth Edison Braidwood Station

BRAIDWOOD NUCLEAR POWER STATION

PHOTOGRAPH OF

MIXED WASTE STORAGE FACILITY

Commonwealth Edison
72 West Adams Street, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

August 13, 1984

SMALL QUANTITY GENERATOR

Mr. Kenneth P. Bechely
Northern Region Manager
Field Operations Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
1701 South First Avenue
Maywood, Illinois 60153

ILD000806505 NOT-2

Dear Mr. Bechely:

This letter is in response to your request that Commonwealth Edison Company withdraw our EPA Form 8700-12 Notification of Hazardous Activity for the Braidwood Generating Station (please reference ~~06300501 - Grundy County - Braceville/Braidwood Station~~).

Commonwealth Edison's Braidwood Generating Station is not currently regulated under 35 Ill. Adm. Code 720 through 725 as determined by the RCRA Inspection Report - Interim Status Standards, Form B Generator Inspection (40 CFR Part 262) for this facility on June 4, 1984. It is anticipated, however, than when the station passes from a construction to an operational phase, concurrent increase in routine maintenance activities would allow for the infrequent generation of some hazardous wastes. If Commonwealth Edison were to withdraw our EPA Form 8700-12 Notification of Hazardous Activity, the Company would most likely be subject to renotification in the near future with the inception of hazardous waste activity.

Please do not hesitate to contact Wendy Mouche of my staff if you require further information in this matter at 312/294-4438.

Sincerely,

Thomas E. Hemminger
Director of Water Quality

5380E
WGM:TEH:dd

OBSOLETE COOK CO. CHICAGO / DAILY RACING FORM

DAILY RACING FORM, INC.

1301 NORTH ELSTON AVENUE • CHICAGO, ILLINOIS 60622 • (312) 227-3000

~~ILD 000 650 527~~
ILD 005 155 213 NOT-2

DAVID SCHULTZ
GENERAL MANAGER

SMALL QUANTITY GENERATOR

June 22, 1984

(2)

RECEIVED
JUN 25 1984
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Kenneth P. Bechely, Northern Region Manager
Field Operations Section
Division of Land Pollution Control
1701 First Avenue
Maywood, Illinois 60153

Dear Mr. Bechely:

In response to your letter dated June 1, 1984, regarding the findings of the inspection of our facilities we thank you for your notice that we appear to be a small quantity generator.

I hereby confirm to you that, in accordance with the requirement of 35 Ill. Adm. Code 721.105, Daily Racing Form by virtue of generating less than 1,000 Kg. of hazardous waste, is a small quantity generator. Daily Racing Form's operations generate hazardous waste only in the form of printing ink mixed with a solvent. All other waste products are disposed as by-products sold for reprocessing.

Very truly yours,

DAILY RACING FORM, INC.

DS:mm
cc: Eileen Cross
U.S. EPA, Region V

RECEIVED
JUN 27 1984
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

USEPA H. Cooke

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

217/524-3300

May 16, 2001

CERTIFIED MAIL
7099 3400 0002 1429 8026

Exelon Generation Company, LLC
Attn: Mr. George Vanderheyden
General Manager, Generation Support
1400 Opus Place, Suite 500
Downers Grove, Illinois 60515

Re: 1970155012 -- Will County
Exelon - Braidwood Nuclear Power Station
ILD000806505
RCRA Part A Permit
Log No. A-511- Modification
Received: October 13, 2000; December 26, 2000; March 15, 2001 and April 19, 2001

Dear Mr. Vanderheyden:

This letter is in response to four separate submittals from Kevin K. Hersey dated October 12, 2000; December 20, 2000; March 12, 2001 and April 9, 2001. The contents of the subject submittals can be summarized as follows:

- **Submittal from Commonwealth Edison (ComEd) dated October 12, 2000 (received October 13, 2000)**
  Submittal informed the Illinois EPA that "Commonwealth Edison and PECO Energy are merging to form a new organization to be named Exelon Corporate", of which Exelon Generation Company LLC (Exelon) is a subsidiary. The tentative date for this reorganization was to be January 1, 2001. Included in this submittal was a partially revised Part A permit application to reflect the new organization and management structure.

- **Submittal from ComEd dated December 20, 2000 (received December 26, 2000)**
  Submittal contained a complete Part A permit application (replacement for the Part A application contained in the October 12, 2000 submittal). In addition, the submittal contained: (1) one photograph of the permitted hazardous waste container storage (S01) area known as the "Mixed Waste Storage Facility"; (2) Drawing No. FIP-BR-3 showing the location of the permitted hazardous waste container storage area, known as the "Mixed Waste Storage Facility" (identified in drawing as "Mixed Waste Storage Location") within the above-referenced facility; and (3) a topographic map of the above-referenced facility and surrounding areas.

- **Submittal from Exelon dated March 12, 2001 (received March 15, 2001 by telefax)** Document entitled "Evidence of Authority to Sign Environmental Permits and Other Environmental Related Documents" granting Mr. George Vanderheyden authorization to sign environmental permit applications, permit required reports and other representations regarding environmental requirements. The subject document was signed by Mr. Oliver D. Kingsley, Executive Vice President, Exelon Corporation.

- **Submittal from Exelon dated April 9, 2001 (received April 19, 2001)** Submittal contained an amended Part A permit application with the correct Secondary Identification Number.

Based on a review of the above-referenced submittals and information previously submitted to the Illinois EPA, the hazardous waste management unit subject to RCRA regulation at this facility is the hazardous waste container storage (S01) area known as the "Mixed Waste Storage Facility". The subject submittals have been reviewed as a request to modify the Part A Permit currently in effect for the above-referenced facility.

In accordance with 35 Ill. Adm. Code 703.155(a)(4), the owner or operator of an interim status facility may make "Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of 35 Ill. Adm. Code 725, Subpart H (financial requirements), until the new owner or operator has demonstrated to the Agency that it is complying with the requirements of that Subpart. The new owner or operator shall demonstrate compliance with the financial assurance requirements within six months after the date of the change in the ownership or operational control of the facility. Upon demonstration to the Agency by the new owner or operator of compliance with the financial assurance requirements, the Agency shall notify the old owner or operator in writing that the old owner or operator no longer needs to comply with 35 Ill. Adm. Code 725, Subpart H as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility."

The Illinois EPA has determined that Exelon has met the requirements of 35 Ill. Adm. Code 703.155(a)(4), (submittal of revised Part A permit application), and hereby approves the modification request. As such, upon completion of the aforementioned transaction and notification to the Illinois EPA that the transaction has been completed, management of mixed wastes may continue under Exelon's operational control at this facility in accordance with the following requirements:

1. Unless specifically modified by this letter, management of hazardous and mixed waste at the above referenced facility shall continue to be in accordance with the Illinois EPA's letter dated November 18, 1997.

2. Only those mixed wastes which have the EPA Hazardous Waste Numbers D001, D008, D035, D039, F001, F002, F003 and F005 may be stored in the permitted S01 unit identified as the "Mixed Waste Storage Facility".

3. A maximum of 2,200 gallons of mixed waste may be stored in containers in the storage area permitted by this permit ("Mixed Waste Storage Facility").

4. Storage of mixed wastes previously not identified in Part A of the permit application is subject to the requirements of 35 Ill. Adm. Code 703.155 (a)(1).

5. Incompatible waste containers must be segregated from other materials or protected from them using a berm, dike or containment wall as required by 35 Ill. Adm. Code 725.277.

6. The management of mixed wastes at this facility must be carried out in accordance with the applicable requirements of 35 Ill. Adm. Code 702, 703, 705, 721, 722 and 725. This includes the financial assurance requirements of 35 Ill. Adm. Code 725, Subpart H.

7. Within 30 days of this letter, Exelon must provide a detailed closure cost estimate for the permitted S01 unit known as "Mixed Waste Storage Facility".

The Illinois EPA requests Exelon to provide a notice of the modification to all persons on the facility mailing list including the appropriate units of State and local government. This notification should be made within ninety (90) calendar days of the date of this letter. A generic facility mailing list has been provided for your use. Please contact Mara McGinnis, Office of Community Relations, at 217/524-3288 for assistance with developing your facility mailing list.

As specified in 35 Ill. Adm. Code 703.150(d), Illinois EPA will in the future request that Part B of the RCRA permit application be submitted for review and approval. At that time, Exelon will have six (6) months (minimum) to submit the application. Once received, the Illinois EPA will begin reviewing this application in accordance with the procedures set forth in 35 Ill. Adm. Code 705.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Should you have any questions concerning this matter, please feel free to contact John Riekstins of my staff at 217/524-3309.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:JR\mls\012451.doc

Enclosure: Generic Facility Mailing List

cc: USEPA Region V -- Harriet Croke (w/o enclosure)
Kevin K. Hersey – Exelon (w/o enclosure)

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

USEPA

217/782-6761

Refer to: 0630050001 -- Grundy County
Commonwealth Edison-Braidwood Nuclear Power Station
ILD000806505
Compliance File

January 7, 1992

Commonwealth Edison
Attn: Judy Freitag
72 West Adams Street
Post Office Box 767
Chicago, Illinois 60690-0767

Dear Ms. Freitag:

The Agency is in receipt of your November 27, 1991 response(s) to our November 12, 1991 Compliance Inquiry Letter. Your response(s) has been reviewed and the apparent violation(s) of Section(s) 724.251 is now considered resolved.

If you have any questions, please contact Andrew Vollmer at 217/782-6761.

Sincerely,

Brian S. White, Manager
Compliance Unit
Planning and Reporting Section
Division of Land Pollution Control

BSW:AV:LS:ric/17r,15

cc: Division File
Maywood Region
USEPA Region V
Andrew Vollmer
Bill Ingersoll
Lizz Schwartzkopf

US EPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Refer to: 0630050001 -- Grundy County
Braidwood Nuclear Power Station
ILD000806505
Compliance File

0630600501A -- Grundy County
Dresden Nuclear Power Station
ILD000805489
Compliance File

0972005002 -- Lake County
Zion Nuclear Power Station
ILD010217156
Compliance File

COMPLIANCE INQUIRY LETTER

Certified #P 681 208 465

November 12, 1991

Commonwealth Edison
Attn: Judy Freitag
72 West Adams Street
Post Office Box 767
Chicago, Illinois 60690-0767

Dear Ms. Freitag:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of 35 Ill. Adm. Code Part 725 and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance in Attachment A are based on a November 5, 1991 review of documents submitted to the Agency to demonstrate compliance with the requirements of Subpart H.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response, and two copies of all documents submitted in reply to this letter, should be sent to the following:

Lizz Schwartzkopf
Compliance Unit
Planning and Reporting Section
Illinois Environmental Protection Agency
Division of Land Pollution Control
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Enclosed are your rejected financial instruments along with new forms to be completed.

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and rules and regulations adopted thereunder may be the subject of enforcement action pursuant to either the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec. 1001 et seq. or the Federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

If you have any questions regarding the above, please contact Andrew Vollmer at 217/782-5751.

Sincerely,

Eugene P. Theios, Manager
Facility Reporting Unit
Planning and Reporting Section
Division of Land Pollution Control

EPT:AV:LS:bjh/3444q/13,14

Enclosure

cc: Division File
Maywood Region
USEPA Region V
Andrew Vollmer
Bill Ingersoll
Lizz Schwartzkopf

Attachment A

1. Pursuant to 35 Ill. Adm. Code 724.251, the Board incorporates by reference 40 CFR 264.151 (1988), as amended at 53 Fed. Reg. 33950, September 1, 1988. This Section incorporates no later amendments or editions. The Agency shall promulgate standardized forms based on 40 CFR 264.151 with such changes in wording as are necessary under Illinois law. Any owner or operator required to establish financial assurance under this Subpart shall do so only upon the standardized forms promulgated by the Agency. The Agency shall reject any financial assurance document which is not submitted on such standardized forms.

   You are in apparent violation of 35 Ill. Adm. Code 724.251 for the following reason(s):

   1. On the October 31, 1990 submittal you failed to complete paragraphs 2, 3, 4 and 5.

   2. You failed to complete lines 12, 13 and 14.

   3. In your annual report on page 35 for the year ending 1989 it states that you have an Indiana facility included in your report, if this is a hazardous waste facility, it must be included on your letter from the chief financial officer.

   The violations listed above are for your March 28, 1991 submittal.

EPT:AV:LS:bjh/3444q/15

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by: Mary Wojciechowski
Date: March 24, 1994

Background Facility Information

Facility Name: Commonwealth Edison Company - Braidwood Nuclear Power Station
EPA Identification No.: ILD 000 806 505
Location (City, State): Braidwood, Illinois
Facility Priority Rank: Low

1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility? Explain.

Entire facility which consists of 10 SWMUs

Status of Corrective Action Activities at the Facility

2. What is the current status of HSWA corrective action activities at the facility?

( ) No corrective action activities initiated (Go to 5)
(X) RCRA Facility Assessment (RFA) or equivalent completed
( ) RCRA Facility Investigation (RFI) underway
( ) RFI completed
( ) Corrective Measures Study (CMS) completed
( ) Corrective Measures Implementation (CMI) begun or completed
( ) Interim Measures begun or completed

3. If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order?

( ) Operating permit
( ) Post-closure permit
( ) Enforcement order
(X) Other (Explain)

Past corrective actions were voluntary.

4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility?

( ) Yes
( ) No
( ) Uncertain; still underway
(X) Not required

Additional explanatory notes:

Interim measures have not been officially required. Soil contaminated with diesel fuel was removed from the facility in 1991.

Facility Releases and Exposure Concerns

5. To what media have contaminant releases from the facility occurred or been suspected of occurring?

(X) Groundwater
( ) Surface water
( ) Air
(X) Soils

6. Are contaminant releases migrating off-site?

( ) Yes; Indicate media, contaminant concentrations, and level of certainty.

Groundwater:
Surface water:
Air:
Soils:

( ) No
(X) Uncertain

7a. Are humans currently being exposed to contaminants released from the facility?

( ) Yes (Go to 8a)
( ) No
(X) Uncertain

Additional explanatory notes:

It is not known if soil contamination remains on site or has migrated off site.

7b. Is there a potential for human exposure to the contaminants released from the facility over the next 5 to 10 years?

(X) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

The nearest surface water is an on-site pond used for recreation and cooling water supply. Drinking water comes from the Kankakee River 3 miles east of the facility.

8a. Are environmental receptors currently being exposed to contaminants released from the facility?

( ) Yes (Go to 9)
( ) No
(X) Uncertain

Additional explanatory notes:

It is not known if soil contamination remains on site or has migrated off site.

8b. Is there a potential that environmental receptors could be exposed to the contaminants released from the facility over the next 5 to 10 years?

(X) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

Wetlands are located near the facility boundaries.

Anticipated Final Corrective Measures

9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat to human health and the environment?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

Final corrective measures have not been identified or planned.

10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and the environment?

( ) Yes
( ) No
(X) Uncertain

Additional explanatory notes:

Although contaminated soil was removed, it is not known if residual soil contamination remains.

11. If a stabilization activity were not begun, would the threat to human health and the environment significantly increase before final corrective measures could be implemented?

( ) Yes
( ) No
(X) Uncertain

Additional explanatory notes:

Although contaminated soil was removed, it is not known if residual soil contamination remains.

Technical Ability to Implement Stabilization Activities

12. In what phase does the contaminant exist under ambient site conditions? Check all that apply.

(X) Solid
(X) Light non-aqueous phase liquids (LNAPLs)
( ) Dense non-aqueous phase liquids (DNAPLs)
( ) Dissolved in groundwater or surface water
( ) Gaseous
( ) Other _____

13. Which of the following major chemical groupings are of concern at the facility?

(X) Volatile organic compounds (VOCs) and/or semi-volatiles
( ) Polynuclear aromatics (PAHs)
( ) Pesticides
( ) Polychlorinated biphenyls (PCBs) and/or dioxins
( ) Other organics
(X) Inorganics and metals
( ) Explosives
(X) Other Radioisotopes

14. Are appropriate stabilization technologies available to prevent the further spread of contamination, based on contaminant characteristics and the facility's environmental setting? [See Attachment A for a listing of potential stabilization technologies.]

( ) Yes; Indicate possible course of action.

(X) No; Indicate why stabilization technologies are not appropriate; then go to Question 18.

Although contaminated soil was removed, it is not known if residual soil contamination remains.

15. Has the RFI, or another environmental investigation, provided the site characterization and waste release data needed to design and implement a stabilization activity?

( ) Yes
( ) No

If No, can these data be obtained faster than the data needed to implement the final corrective measures?

( ) Yes
( ) No

Timing and Other Procedural Issues Associated with Stabilization

16. Can stabilization activities be implemented more quickly than the final corrective measures?

( ) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

17. Can stabilization activities be incorporated into the final corrective measures at some point in the future?

( ) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

Conclusion

18. Is this facility an appropriate candidate for stabilization activities?

( ) Yes
( ) No, not feasible
( ) No, not required
(X) Further investigation necessary

Explain final decision, using additional sheets if necessary.

This information was obtained from a 1994 PA/VSI prepared by PRC Environmental Management, Inc.

In 1991, soil contaminated with diesel fuel was removed from the facility. Soil sampling to confirm that all contamination was removed was not conducted.

Further investigation is necessary to determine if residual contamination exists.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRE-8J

March 31, 1994

Mr. Kurt Kofron
Station Manager
Commonwealth Edison Company
Braidwood Nuclear Power Station
Rural Route 1, Box 84
Braceville, IL 60407

Re: Visual Site Inspection
Commonwealth Edison Company
Braidwood Nuclear Power Station
Braidwood, Illinois
ILD 000 806 505

Dear Mr. Kofron:

The U.S. Environmental Protection Agency is enclosing a copy of the final Preliminary Assessment/ Visual Site Inspection (PA/VSI) report for the referenced facility. The executive summary and conclusions and recommendations sections have been withheld as Enforcement Confidential.

If you have any questions, please call Francene Harris at (312) 886-2884.

Sincerely yours,

Matthew J. Ahl for

Kevin M. Pierard, Chief
Minnesota/Ohio Technical Enforcement Section
RCRA Enforcement Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRE-8J

December 20, 1993

Mr. Kurt Kofron, Station Manager
Commonwealth Edison Braidwood Nuclear Power Station
Rural Route 1, Box 84
Braceville, IL 60407

Re: Visual Site Inspection
Commonwealth Edison
Braidwood Nuclear Power Station
Braidwood, IL
ILD 000 806 505

Dear Mr. Kofron:

The United States Environmental Protection Agency (U.S. EPA) Region V will conduct a Preliminary Assessment and a Visual Site Inspection (PA/VSI) at the referenced facility. This inspection is conducted pursuant to the Resource Conservation and Recovery Act, as amended (RCRA) Section 3007 and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA) Section 104(e). The referenced facility has generated, treated, stored, or disposed of hazardous waste subject to RCRA. The PA/VSI requires identification and systematic review of all solid waste streams at the facility. The objective of the PA/VSI is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the facility which may require further investigation. This analysis will also provide information to establish priorities for addressing any confirmed releases.

The visual site inspection of your facility is to verify the location of all solid waste management units (SWMUs) and areas of concern (AOCs) and to make a cursory determination of their condition by visual observation. The definitions of SWMUs and AOCs are included in Attachment I. The VSI supplements and updates data gathered during a preliminary file review. During this site inspection, no samples will be taken. A sampling visit to ascertain if releases of hazardous waste or constituents have occurred may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. The site inspection is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of the facility are necessary to document the condition of the units at the facility and the waste management practices used.

The VSI has been scheduled for January 17, 1994, at 10:00 a.m. The inspection team will consist of Manoj Mishra and Scott Lloyd of PRC Environmental Management, Inc., a contractor for the U.S. EPA. Representatives of the Illinois Environmental Protection Agency (IEPA) may also be present. Your cooperation in admitting and assisting them while on site is appreciated.

The U.S. EPA recommends that personnel who are familiar with present and past manufacturing and waste management activities be available during the VSI. Access to any relevant maps, diagrams, hydrogeologic reports, environmental assessment reports, sampling data sheets, environmental permits (air, NPDES), manifests and/or correspondence is also necessary, as such information is needed to complete the PA/VSI.

If you have any questions, please contact me at (312) 886-4448 or Francene Harris at (312) 886-2884. A copy of the Preliminary Assessment/Visual Site Inspection Report, excluding the conclusions and Executive Summary portion will be sent when the report is available.

Sincerely yours,

Kevin M. Pierard, Chief
OH/MN Technical Enforcement Section

Enclosure

cc: Larry Eastep, IEPA Springfield
Susan George, IEPA Maywood
Pat Boyle, Commonwealth Edison
Louis Magers, Commonwealth Edison
Joe Tidmore, Commonwealth Edison

ATTACHMENT I

The definitions of solid waste management unit (SWMU) and area of concern (AOC) are as follows.

A SWMU is defined as any discernable unit where solid wastes have been placed at any time from which hazardous constituents might migrate, regardless of whether the unit was intended for the management of a solid or hazardous waste.

The SWMU definition includes the following:

- RCRA regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that U.S. Environmental Protection Agency has generally exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents, such as wood preservative treatment dripping areas, loading or unloading areas, or solvent washing areas

An AOC is defined as any area where a release to the environment of hazardous wastes or constituents has occurred or is suspected to have occurred on a nonroutine or nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

PRC requests that, if available, the following facility information be provided during the VSI:

1. Two copies of a detailed map of the facility
2. Facility history, including dates of operation, ownership changes, and production processes
3. Current facility operations
4. Processes that generate waste that is treated, stored, or disposed of at the facility
5. Records of disposal of wastes generated at the facility (manifests, annual reports, etc...)
6. Security at the facility
7. Information regarding geology and the uses of ground water and surface water in the area
8. Permits (air, NPDES, etc...) the facility currently holds or has held in the past and documentation of any permit violations that may have occurred
9. Records of any spills that may have occurred at the facility
10. Descriptive operational information (location, dimensions, capacity, materials of construction, etc...), dates of start-up and closure, wastes managed, release controls, and release history for each SWMU

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

COMMONWEALTH EDISON COMPANY
BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS
ILD 000 806 505

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

Work Assignment No.	:	R05032
EPA Region	:	5
Site No.	:	ILD 000 806 505
Date Prepared	:	March 11, 1994
Contract No.	:	68-W9-0006
PRC No.	:	309-R05032IL2G
Prepared by	:	PRC Environmental Management, Inc. (Manoj Mishra)
Contractor Project Manager	:	Shin Ahn
Telephone No.	:	(312) 856-8700
EPA Work Assignment Manager	:	Kevin Pierard
Telephone No.	:	(312) 886-4448

CONTENTS

FIGURES

TABLES

EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from the solid waste management units (SWMU) and other areas of concern (AOC) at the Commonwealth Edison Company, Braidwood Nuclear Power Station (Braidwood) facility in Braidwood, Will County, Illinois. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from the SWMUs and AOCs identified.

The Braidwood facility is a full-steam electricity generation facility. Two water-pressurized nuclear fission reactors provide steam used to rotate turbines and the electricity generators coupled with them. Each of the reactors at Braidwood use the following three closed-loop cycles: (1) a primary cycle that provides heat to generate steam; (2) a secondary cycle that runs the turbines; and (3) a cooling cycle that cools steam exhausted by the secondary cycle, condensing the exhausted steam back to water, which is used again.

Hazardous wastes generated at the Braidwood facility include the following: mixed waste (F001), waste petroleum naphtha (D001, D018, and D039), waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040), spent chlorinated solvents (F002 and F003), spent nonchlorinated solvents (D001, D018, and D039), freon-contaminated oil and water (F002 and F003), and nonroutine wastes (various waste codes). The following nonhazardous wastes are generated at the facility: spent resins, spent charcoal, waste grease, spent mineral spirit, used oil, lime sludge, wastewater, and wastewater treatment plant (WWTP) sludge. According to facility representatives, mixed waste (F001), waste petroleum naphtha (D001, D018, and D039), and waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040) are no longer generated at the facility.

In October 1990, the facility filed a Part A permit application that listed the process code for a container storage (S01) unit with a capacity of 2,200 gallons. This process code referred to the facility's Mixed Waste Container Storage Area (CSA) (SWMU 1). According to the application, 85 gallons of mixed waste are stored at the facility. At the time of the VSI, the Braidwood facility had

not submitted a Part B permit application for SWMU 1 and was operating as an interim status treatment, storage, or disposal facility.

The PA/VSI identified the following 10 SWMUs at the facility:

1. Mixed Waste CSA
2. Hazardous Waste CSA
3. Used Oil Storage Pad
4. Used Oil Storage Tank
5. Hazardous Waste Satellite Accumulation Areas (SAA)
6. Indoor Oil Skimmer
7. Outdoor Oil Skimmers
8. WWTP
9. WWTP Sludge Pond
10. Lime Sludge Pond

No AOCs were identified during the PA/VSI.

The potential for release from all facility SWMUs to all environmental media is low. Mixed Waste CSA (SWMU 1) manages waste in closed containers that are kept inside secondary containers made of polyethylene. The secondary containers are surrounded by spill control booms and are stored on a concrete floor inside a building. The concrete floor is covered with polyacrylate terrazzo and has no drain. Hazardous Waste CSA (SWMU 2) manages hazardous and nonhazardous wastes in closed containers on a concrete pad inside a building. The concrete floor has a berm and no drains. Used Oil Storage Pad (SWMU 3) manages nonhazardous waste in closed containers outdoors on a bermed concrete pad. A drain in the concrete pad leads to the Outdoor Oil Skimmers (SWMU 7). Used Oil Storage Tank (SWMU 4) manages nonhazardous waste in an aboveground storage tank (AST). The AST is located inside a building and over a concrete floor and is surrounded by a berm. A drain in the concrete floor leads to the floor drain system. All the wastewater from this floor drain system is treated in SWMU 8. Hazardous Waste SAAs (SWMU 5) manage containers of hazardous waste stored inside metal cabinets. These cabinets have spill control pans and are located indoors on a concrete floor. A drain in the concrete floor leads to the floor drain system. All the wastewater from this floor drain system is treated in SWMU 8. Indoor Oil Skimmer (SWMU 6) manages nonhazardous waste in a 55-gallon drum stored inside a building that has a concrete floor. Outdoor Oil Skimmers (SWMU 7) manage nonhazardous waste in buried concrete tanks. WWTP (SWMU 8)

manages nonhazardous waste inside a building that has a concrete floor. WWTP and Lime Sludge Ponds (SWMUs 9 and 10, respectively) manage nonhazardous wastes in clay-lined, outdoor ponds. PRC found no documentation of hazardous constituent releases from any of the facility's SWMUs.

The Braidwood facility occupies 4,457 acres in a mixed residential and undeveloped area. The facility is bordered on the north by Mount Olivet Cemetery, the village of Godley, and a trailer park; on the east by agricultural lands; on the south by unused land; and on the west by Route 53. The southern and western boundaries of the Braidwood facility are also adjacent to the boundary lines between Will and Kankakee Counties, and between Will and Grundy Counties, respectively.

The facility's main cooling pond is the nearest surface water body to the facility. The pond occupies 2,537 acres, supplies cooling water to the facility, and is used for recreational purposes. The facility's makeup and drinking water intake is from the Kankakee River at a location about 3 miles east of the facility. The Kankakee and Mazon Rivers, located about 3 miles east and 1 mile southwest of the facility, respectively, receive discharges from the facility under an National Pollutant Discharge Elimination System permit issued by the Illinois Environmental Protection Agency.

Groundwater is not used as the primary source of drinking water in the facility area. However, the town of Braidwood, located about 1.5 miles north of the facility, obtains drinking water from a deep aquifer. There are also two private wells within 2 miles of the facility that draw water from a deep aquifer. A cement bentonite slurry trench hydraulically isolates the shallow aquifer at the site from the facility surroundings.

The nearest residences are located within 0.25 mile of the facility's northeastern corner. These residences are part of the village of Godley. The town of Braidwood is about 1.5 miles north of the facility. Residences in the village of Godley and the town of Braidwood are located about 0.5 to 2 miles from the nearest active structures at the facility. Facility access is tightly restricted and monitored by double fencing, surveillance cameras, security doors, and an on-site security staff. Wetland areas of Lacustrine, Palustrine, and Riverine systems are located on and near the facility property.

PRC recommends no further action for any facility SWMUs at this time.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. R05032 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Commonwealth Edison Company (CECO), Braidwood Nuclear Power Station (Braidwood) facility (EPA Identification No. ILD 000 806 505)

located in Braidwood, Will County, Illinois. The PA was completed on January 17, 1994. PRC gathered and reviewed information from the Illinois Environmental Protection Agency (IEPA) and from EPA Region 5 RCRA files. The VSI was conducted on January 17, 1994. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified 10 SWMUs and no AOCs at the facility.

The VSI is summarized and 14 of 25 inspection photographs taken during the VSI are included in Appendix A. Most of the photographs have been renumbered; thus, their numbers differ from the photograph numbers in the VSI field notes, which are included in Appendix B.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors.

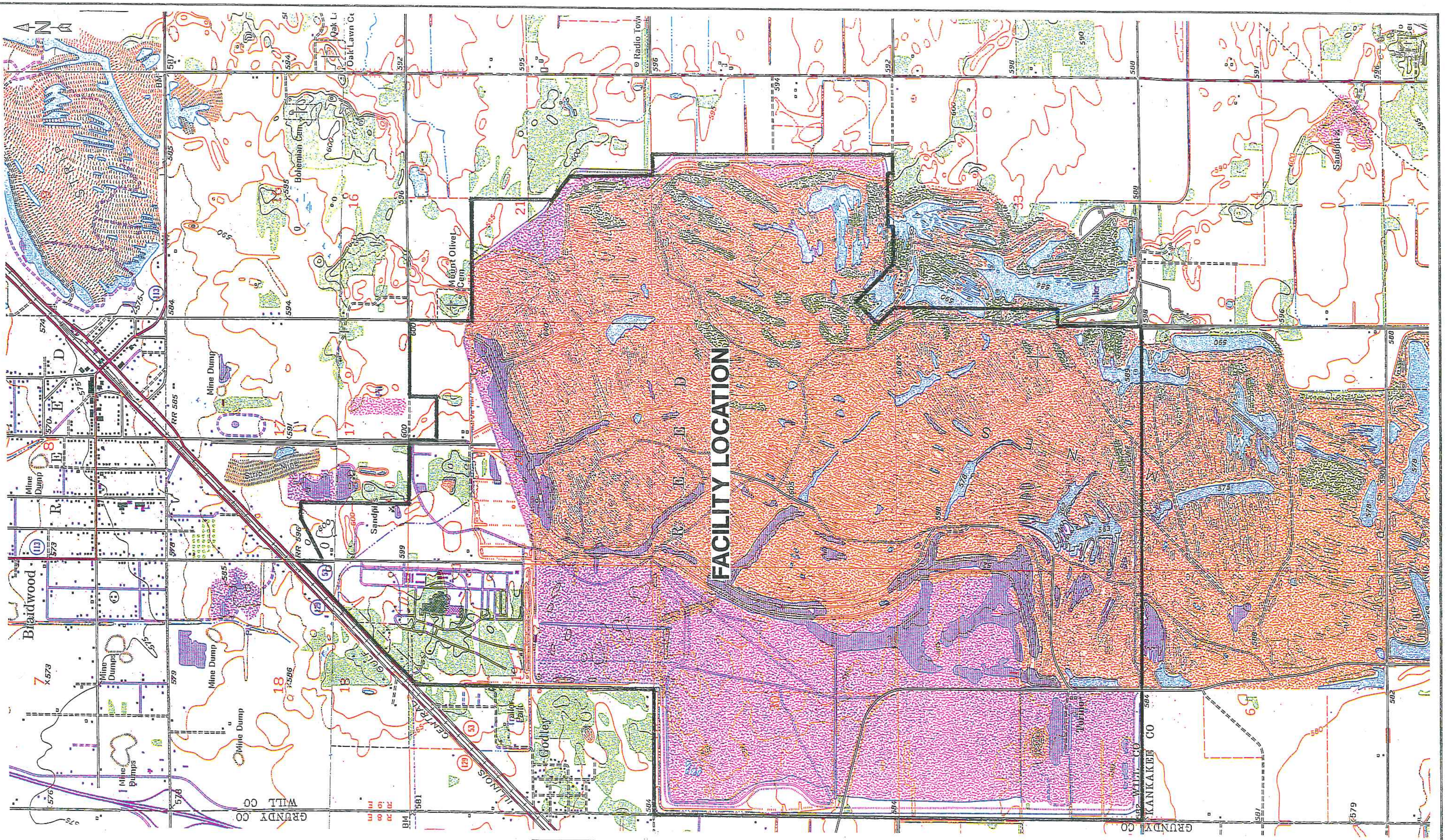
2.1 FACILITY LOCATION

The Braidwood facility is located on Route 53 in Reed Township, Will County, Illinois. Figure 1 shows the location of the facility in relation to the surrounding topographic features [latitude 41°14'38" N and longitude 88°13'42" W (CECO, 1994)]. The Braidwood facility occupies approximately 4,457 acres in a mixed residential and undeveloped area. About 2,537 acres of the facility's property is occupied by the main cooling pond. Furthermore, approximately 6 square miles of area surrounding the facility is owned by CECO, the owner of Braidwood facility. This area is used for farming and land application of lime sludge and sewage sludge generated by the facility.

The Braidwood facility is bordered on the north by Mount Olivet Cemetery, the village of Godley, and a trailer park; on the east by agricultural lands; on the south by the unused land; and on the west by Route 53. The southern and western boundaries of the Braidwood facility are also adjacent to the boundary lines between Will and Kankakee Counties, and between Will and Grundy Counties, respectively.

2.2 FACILITY OPERATIONS

The Braidwood facility is a full-steam electricity generation facility. Two water-pressurized nuclear fission reactors provide steam used to rotate turbines and the electricity generators coupled with them. Each of the reactors at Braidwood use the following three closed-loop cycles: (1) a primary cycle that provides heat to generate steam; (2) a secondary cycle that runs the turbines; and (3) a cooling cycle that cools steam exhausted by the secondary cycle, condensing the exhausted steam back to water, which is used again. A schematic diagram showing the three cycles is presented in Figure 2.



SOURCE: MODIFIED FROM USGS, ESSEX, ILLINOIS, QUADRANGLE, 1980
AND WILMINGTON, ILLINOIS, QUADRANGLE, 1973

FILENAME.DWG - 00/00/94 - MLB 000-0000000

QUADRANGLE LOCATION

SCALE 1:24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

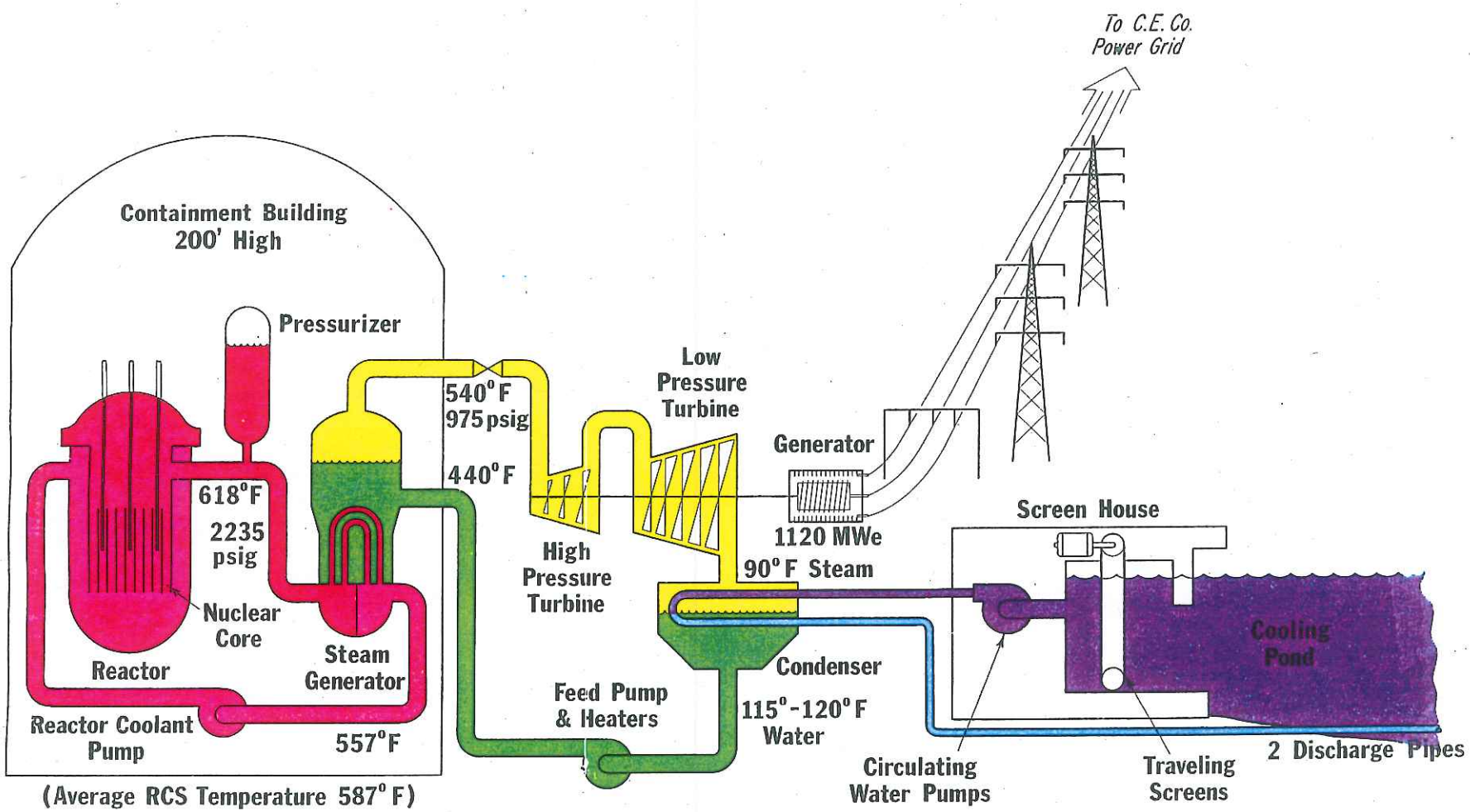
SCALE: 1" = 2,000'

BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS

FIGURE 1

FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.



SOURCE: MODIFIED FROM BRAIDWOOD (NO DATE)

BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS

FIGURE 2

PRESSURIZED WATER REACTOR DIAGRAM

PRC ENVIRONMENTAL MANAGEMENT, INC.

The primary cycle is used to transfer heat from the nuclear fission reactor to heat exchangers, or steam generators, where steam is made. Major components of the primary cycle include the reactor, a pressurizer, and four coolant loops. Each of these coolant loops contains a reactor coolant pump and a steam generator, which serve as the interface between the primary and the secondary cycles. The reactor coolant pump in each coolant loop circulates radioactive reactor coolant. The flow rate, pressure, and temperature of coolant in each loop is approximately 100,000 gallons per minute (gpm); 2,235 pounds per square inch, gauge (psig); and 587 °F; respectively. The coolant from each loop passes through the reactor and then through thousands of "U-tubes" inside its respective steam generator, where heat from the nuclear chain reaction is transferred to the nonradioactive secondary cycle. A pressurizer maintains pressure within the primary cycle to keep the reactor coolant from boiling and acts as a surge tank for routine expansion and contraction of the reactor coolant as it heats and cools (CECO No Date).

The secondary cycle transfers heat from the steam generators to the turbines for electricity production. Major components of the secondary cycle include the high-pressure and low-pressure turbines, the electricity generator, and the condenser. Ultra-pure, nonradioactive water is circulated through the "secondary side" of the steam generator, where it is boiled to make high-pressure steam (975 psig at 540 °F). The pressurized steam passes through the high-pressure and low-pressure turbines, where it expands and strikes the turbine blades, causing the turbine shaft to rotate. Turbine shaft rotates the electricity generator coupled with it, which generates electricity. Steam exhausted from the low-pressure turbine is discharged to the condenser, where it is cooled and converted back to water, which is recycled through the secondary cycle (CECO No Date).

The cooling cycle for the condenser is used to remove residual heat from the steam that is exhausted from the low pressure turbine, thereby allowing the steam to be condensed to water. Cooling water is drawn from the facility's main cooling pond. The main cooling pond cools water by about 20 °F in 4.5 days. The water used to make up for evaporation that occurs at the main cooling pond is obtained from the Kankakee River (CECO No Date). The facility's intake in the Kankakee River is located about 3 miles east of the Braidwood facility (CECO 1994).

The facility replaces spent reactor fuel every 18 months. Spent fuel is removed from the reactor and replaced with fresh fuel. During these refueling periods, or "outages," the spent fuel, which is highly

radioactive, is placed into the spent fuel storage pool located in the fuel handling building. The spent fuel storage pool is a 35.5-foot-deep pool of water that is constructed of reinforced concrete and lined with stainless steel. Spent fuel remains in the pool as the radioactive materials decay and give off heat (CECO No Date).

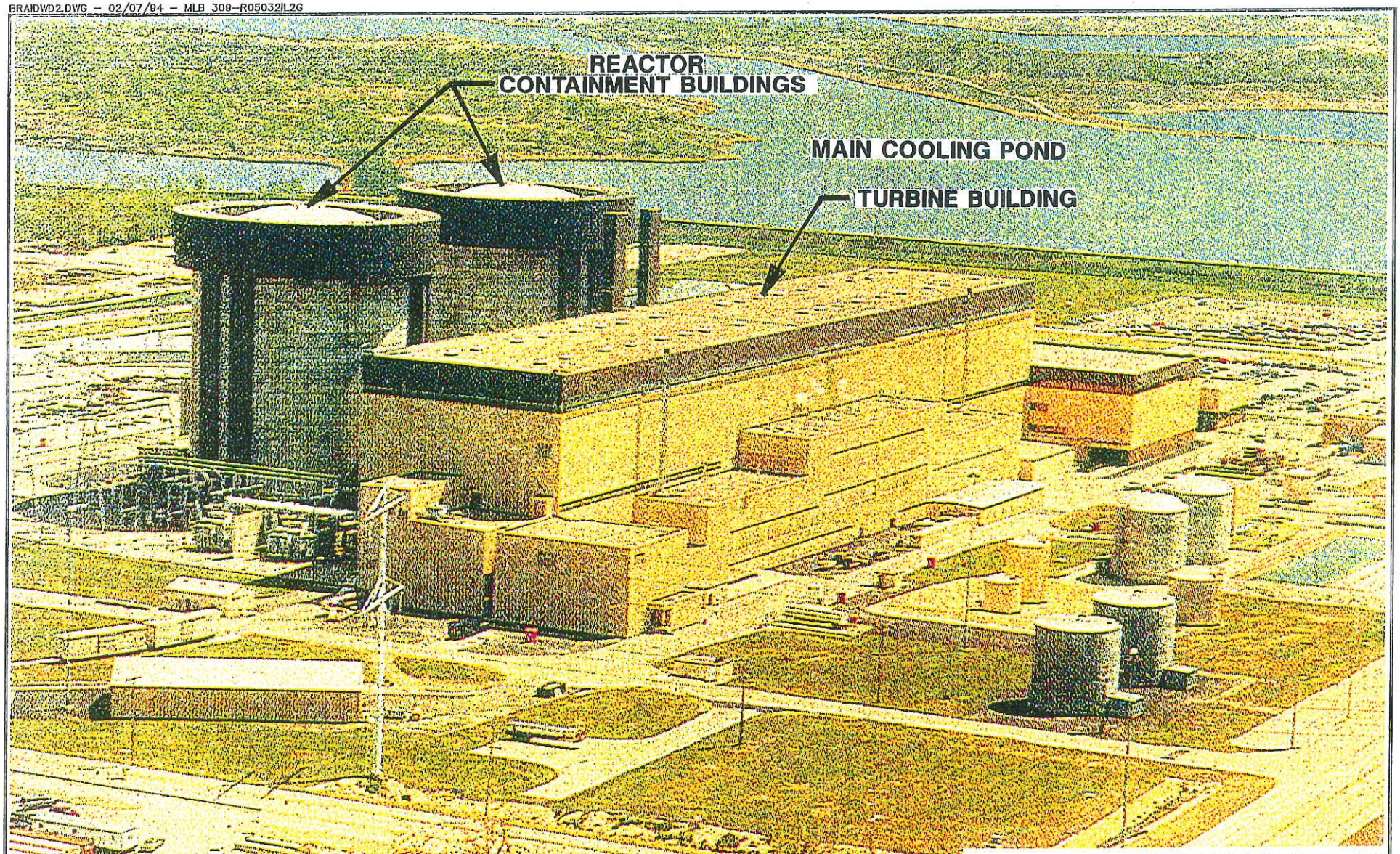
Construction of the Braidwood facility began in 1975. Commercial service at Units 1 and 2 began in July and October 1988, respectively. Before the facility was constructed, the general facility area was used for surface coal mining from approximately 1947 to 1974 (CECO No Date and 1994).

The facility's primary structures are the turbine building, the two reactor containment buildings, and the main cooling pond. The turbine building has four floors that are referred to by their elevation above mean sea level. The floors are referred to as Levels 569, 601, 626, and 651. The reactor containment buildings are 200-foot-tall, reinforced concrete, steel-lined cylinders that have an inside diameter of 140 feet. The buildings also extend to 60 feet below ground and are post-tensioned with steel tendons. The main cooling pond occupies 2,537 acres and is clay lined to reduce seepage (CECO No Date).

Additional structures at the facility include the fuel handling building, the auxiliary building, the access control building, a switchyard, a fire training area, the lime and the wastewater treatment plant (WWTP) sludge ponds, and the aboveground storage tanks (AST) used to store water and fuel oil. Underground storage tanks (UST) are discussed in Section 2.5. Figure 3 shows an aerial view of the Braidwood facility.

During normal operations, about 1,025 people (including Braidwood and its contractor's staff) work at the Braidwood facility. However, during outages, more people may be working on site because of additional contractor staff.

BRAIDWD2.DWG – 02/07/94 – MLB 309-R05032IL2G



SOURCE: PHOTOGRAPH PROVIED BY FACILITY, JANUARY 17, 1994

BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS

FIGURE 3

AERIAL VIEW OF FACILITY

ENVIRONMENTAL MANAGEMENT, INC.

2.3 WASTE GENERATION AND MANAGEMENT

This section describes waste generation and management at the Braidwood facility. The facility's SWMUs are identified in Table 1. The facility layout, including SWMUs, is shown in Figure 4. The facility's waste streams are summarized in Table 2. Unless otherwise noted, waste characterizations and generation rates, where available, were provided by facility representatives during the VSI. Facility representatives also stated that the Braidwood facility has implemented a waste minimization and inventory-control program since the facility began operations. This section does not discuss the generation of high-level and low-level radioactive wastes, which are not considered mixed wastes and are regulated by the Nuclear Regulatory Commission (NRC). Additionally, units that manage these radioactive wastes, such as the spent fuel storage pool and radioactive waste treatment systems, are not discussed.

In the following text, the phrases "water treatment" and "wastewater treatment" refer to specific facility operations. The phrase "water treatment" refers to the treatment of water that is used for steam generation during secondary cycle, and as potable water within the facility. The phrase "wastewater treatment" refers to the treatment of nonradioactive wastewaters excluding sewage.

Hazardous wastes generated at the Braidwood facility include the following: mixed waste (F001), waste petroleum naphtha (D001, D018, and D039), waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040), spent chlorinated solvents (F002 and F003), spent nonchlorinated solvents (D001, D018, and D039), freon-contaminated oil and water (F002 and F003), and nonroutine wastes (various waste codes). The facility generates the following nonhazardous wastes: spent resins, spent charcoal, waste grease, spent mineral spirit, used oil, lime sludge, wastewater, and wastewater treatment plant (WWTP) sludge. According to the facility representatives, mixed waste (F001), waste petroleum naphtha (D001, D018, and D039), and waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040) are no longer generated at the facility.

About 85 gallons of mixed, low-level radioactive and hazardous waste (F001) was generated when a parts cleaning machining was cleaned in the auxiliary building (CECO 1990). The parts cleaning machine was cleaned in mid-1990 and is stored in a warehouse at the facility (PRC 1994a). Because of the difficulties associated with shipping mixed waste to an appropriate off-site disposal facility, this

TABLE 1

SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Mixed Waste Container Storage Area (CSA)	Yes	Active; stores mixed waste for greater that 90 days
2	Hazardous Waste CSA	No	Active; stores hazardous waste for less than 90 days and stores nonhazardous waste
3	Used Oil Storage Pad	No	Active; stores nonhazardous waste
4	Used Oil Storage Tank	No	Active; stores nonhazardous waste
5	Hazardous Waste Satellite Accumulation Areas (SAA)	No	Active; accumulates hazardous waste
6	Indoor Oil Skimmer	No	Active; separates oil from wastewater
7	Outdoor Oil Skimmers	No	Active; separates oil from wastewater
8	Wastewater Treatment Plant (WWTP)	No	Active; treats wastewater
9	WWTP Sludge Pond	No	Active; stores sludge from WWTP
10	Lime Sludge Pond	No	Active; stores sludge from water treatment

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

SWMU 7
OUTDOOR OIL SKIMMERS
(ARROWS POINT TO THE APPROXIMATE LOCATIONS OF SWMU 7 IN SWITCHYARD AND NEAR KANKAKEE RIVER)

Z

WAREHOUSE 3
WAREHOUSE 2
WAREHOUSE 1

SWMU 1
MIXED WASTE CONTAINER STORAGE AREA (CSA)

UNDERGROUND STORAGE TANKS

TAKE-OFF TOWER
REACTOR CONTAINMENT BUILDING 1
FUEL HANDLING BUILDING
REACTOR CONTAINMENT BUILDING 2
TAKE-OFF TOWER

SWMU 2
HAZARDOUS WASTE CSA

SWMU 4
USED OIL STORAGE TANK

AUXILIARY BUILDING

SWMU 5
HAZARDOUS WASTE SAA

RADWASTE FACILITY

SWMU 5
HAZARDOUS WASTE SATELLITE ACCUMULATION AREAS (SAA)

SWMU 6
INDOOR OIL SKIMMER

SWMU 4
USED OIL STORAGE TANK

TURBINE BUILDING

RADWASTE/ SERVICE BUILDING COMPLEX

SERVICE BUILDING ADDITION

HEATER BAY

SWMU 7
OUTDOOR OIL SKIMMERS

SWMU 3
USED OIL STORAGE PAD

RECEIVING BUILDING

SWMU 8
WASTEWATER TREATMENT PLANT

SWMU 9
WWTP SLUDGE POND

SWMU 10
LIME SLUDGE POND

WAREHOUSE

75' 0 75' 150'
SCALE: 1" = 150'

BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS

FIGURE 4

FACILITY LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

SOURCE: MODIFIED

BRAIDWD1.DWG - 02/07/94 - MLB 308-R05032IL2G

TABLE 2

SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b]
Mixed waste/F001[c]	Former parts cleaning equipment	1
Waste petroleum naphtha/D001, D018, and D039[c]	Maintenance operations	None
Waste monoethanolamine/D007, D008, D018, D021, D027, D039, and D040[c]	Maintenance operations	None
Spent chlorinated solvents/F002 and F003	Maintenance operations	2 and 5
Spent nonchlorinated solvents/D001, D018, and D039	Maintenance operations	2 and 5
Freon-contaminated oil and water/F002 and F003	Maintenance operations	2 and 5
Nonroutine wastes/various waste codes	Maintenance and laboratory operations and inventory control	2
Spent resins/NA	Water treatment	2
Spent charcoal/NA	Wastewater treatment	2
Waste grease/NA	Tendon maintenance	2
Spent mineral spirits/NA	Maintenance operations	None
Used oil/NA	Maintenance operations and oil skimming	3, 4, 6, 7, and 8
Lime sludge/NA	Water treatment	10
Wastewater treatment plant sludge/NA	Wastewater treatment	9
Wastewaters/NA	Facility operations	8

Notes:
[a] Not applicable (NA) designates nonhazardous waste.
[b] "None" indicates that the waste stream is not managed on site.
[c] This waste is no longer generated at the facility.

waste remains on site in the Mixed Waste Container Storage Area (CSA) (SWMU 1). This waste has been stored for greater than 90 days.

Waste petroleum naphtha (D001, D018 and D039) was generated by parts washers located throughout the facility. The Braidwood facility has three parts washers that are used regularly. Additional parts washers are rented by the facility when needed, especially during outages. Until October 1993, the facility's part washers were serviced by the Safety-Kleen Corporation (SK) of Elgin, Illinois (EPA ID No. ILD 000 805 911). The parts washers are now serviced by Solvent System Corporation (SSC) of Elgin, Illinois (EPA ID No. ILD 984 832 006), and by Solar Environmental, Inc. (SEI), of Huntington, Indiana (EPA ID No. IND 984 899 740). Because SSC and SEI use nonhazardous mineral spirit in their parts washers, waste petroleum naphtha (D001, D018, and D039) is no longer generated at the facility. The facility generated 1,406 gallons of waste petroleum naphtha in 1993. Because this waste was shipped off site directly from the parts washers, it was not managed on site.

Waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040) was generated by parts washers that are located throughout the facility and were serviced by SK until October 1993. This waste is no longer generated at the facility because the facility's parts washers are now serviced by SSC and SEI, who use nonhazardous mineral spirit in their parts washers. The facility generated 130 gallons of waste monoethanolamine (D007, D008, D018, D021, D027, D039, and D040) in 1993. Because this waste was shipped off site directly from the parts washers, it was not managed on site.

Spent chlorinated solvents (F002 and F003) are generated during equipment cleaning and maintenance activities at the facility. This waste is accumulated in a 55-gallon drum at the Hazardous Waste SAAs (SWMU 5). When full, the drum is transferred to the Hazardous Waste CSA (SWMU 2) for less than 90-day storage. This waste is transported off site by SET Environmental, Inc. (SET), of Wheeling, Illinois (EPA ID No. ILD 981 957 236) to Treatment One of Houston, Texas (EPA ID No. TXD 055 135 388). Braidwood generated 110 gallons of this waste in 1993.

Spent nonchlorinated solvents (D001, D018, and D039) are generated during equipment cleaning and maintenance activities at the facility. This waste is accumulated in a 55-gallon drum at the Hazardous Waste SAAs (SWMU 5). This waste began to be generated in October 1993, and, by the time of the

VSI, the facility had not generated enough waste to fill the drum. Therefore, the generation rate for this waste is not known. According to facility representatives, when full, the drum will be transferred to the Hazardous Waste CSA (SWMU 2) for less than 90-day storage.

Freon-contaminated oil and water (F002 and F003) is generated during equipment maintenance. This waste is accumulated in a 55-gallon drum at the Hazardous Waste SAAs (SWMU 5). When full, the drum is transferred to the Hazardous Waste CSA (SWMU 2) for less than 90-day storage. SET transports this waste to Treatment One. The facility generated 165 gallons of this waste in 1993.

Nonroutine hazardous wastes with various waste codes are generated at the Braidwood facility during maintenance activities and chemical inventory control, which involves disposing of outdated products. These wastes are stored in 55-gallon drums or in containers of various sizes and types that are lab-packed. Both drummed wastes and lab-packed wastes are stored at the Hazardous Waste CSA (SWMU 2) for less than 90 days. SET transports these wastes off site to various facilities including Treatment One; Petrochem Processing (Petrochem) in Detroit, Michigan (EPA ID No. MID 980 615 298); and Bethelehum Apparatus Co. of Hellerton, Pennsylvania (EPA ID No. PAD 002 390 961). Because these wastes are nonroutine, the generation rates vary.

Spent resins (nonhazardous) are generated during water treatment at the facility. This waste is stored in metal containers at the Hazardous Waste CSA (SWMU 2) until shipped off site. SEI; Mr. Frank, Inc., of Illinois (EPA ID No. ILD 984 775 049) (Mr. Frank); and Clean Harbors Environmental Services of Massachusset (EPA ID No. MAD 039 322 250) transport this waste off site to Land & Lakes (L&L) landfill in Chicago, Illinois (IEPA ID No. 0316000034). The facility generated 64 cubic yards of this waste in 1993.

Spent charcoal (nonhazardous) is generated during wastewater treatment at the facility. This waste is stored in 55-gallon drums at the Hazardous Waste CSA (SWMU 2) until shipped off site. This waste is transported off site by one of the special waste transporters such as Mr. Frank to L&L landfill for disposal. The facility generated about 30 cubic yards of this waste in 1993.

Waste grease (nonhazardous) is generated during maintenance of tendons in the facility's reactor containment building. This waste is stored in 55-gallon drums at the Hazardous Waste CSA

(SWMU 2) until being shipped off site. SET transports this waste to Petrochem. The facility generated 275 gallons of this waste in 1993.

Spent mineral spirit (nonhazardous) is generated by parts washers located throughout the facility. The part washers are serviced by SSC and SEI, who ship this waste directly to Great Northern Processing (GNP) of Huntington, Indiana (EPA ID No. IND 984 900 209). Therefore, this waste is not managed on site. The facility generated 40 gallons of this waste in 1993.

Used oil (nonhazardous) is generated by equipment maintenance activities, by the facility's Indoor and Outdoor Oil Skimmers (SWMUs 6 and 7), and by the WWTP (SWMU 8). Used oil generated during equipment maintenance is stored in 55-gallon drums at the Used Oil Storage Pad (SWMU 3) or in the Used Oil Storage Tank (SWMU 4) until being shipped off site. Used oil generated by oil skimming at the Indoor Oil Skimmer (SWMU 6) is accumulated in a 55-gallon drum that is transferred to the Used Oil Storage Pad (SWMU 3) for storage until shipped off site. Used oil from the WWTP (SWMU 8) is stored in a 1,000-gallon AST at the WWTP (SWMU 8) until being shipped off site. Used oil generated by the Outdoor Oil Skimmers (SWMU 7) is transferred directly to an oil tanker used by SEI, who transports all used oil from the facility to GNP. The facility generated 1,193 gallons of used oil in 1993.

Lime sludge (nonhazardous) is generated during water treatment at the facility. This waste is accumulated in the 500,000-gallon Lime Sludge Pond (SWMU 10). Lime sludge from the pond is transported off site for land application at CECO's farms. Lime sludge is applied to the land under two IEPA land application permits discussed in Section 2.5. The generation rate of lime sludge is not monitored.

The WWTP sludge (nonhazardous) is generated during wastewater treatment at the WWTP (SWMU 8). This waste is accumulated in the 500,000-gallon WWTP Sludge Pond (SWMU 9). WWTP sludge has never been removed from the WWTP Sludge Pond (SWMU 9) for off site shipment because the facility has not yet accumulated enough of this waste to require its shipment off site.

The Braidwood facility also generates wastewaters that are managed by the WWTP (SWMU 8) and the Indoor Oil Skimmer (SWMU 6), and stormwater that is managed by the Outdoor Oil Skimmers (SWMU 7). Wastewaters managed by SWMUs 6 and 8 come from (1) floor drains located in the turbine building, (2) equipment drains, and (3) auxiliary boiler blowdown. These wastewaters and stormwater are not characterized prior to treatment; however, the discharge from SWMUs 7 and 8 is regulated under the facility's National Pollutant Discharge Elimination System (NPDES) permits discussed in Section 2.5.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to groundwater and on-site soils at the Braidwood facility. The discussion below is based on information provided by Braidwood facility representatives during the VSI (CECO 1994). PRC did not note any additional releases to groundwater, surface water, air, or on-site soils during its review of EPA and IEPA files. Moreover, PRC found no documentation indicating that further action was required for the incidents discussed below.

Approximately 8,000 gallons of Diesel Fuel Oil No. 2 were released to on-site soil between approximately October 24, 1990, and December 19, 1990. The release occurred from a damaged diesel oil pipe located about 1 to 2 feet above a storm sewer that discharges to the Outdoor Oil Skimmers (SWMU 7) located in the northeastern quadrangle of the facility. About 7,750 gallons of the diesel fuel was recovered from SWMU 7 by January 12, 1991. About 275 cubic yards of soil contaminated by diesel fuel was excavated and disposed of at the L&L landfill in Chicago, Illinois. Groundwater at the Braidwood facility was monitored until December 1992 when groundwater contamination was detected to be below Class II groundwater standards. The facility reported this release, its associated cleanup activities, and the results of groundwater monitoring to IEPA (CECO 1991a, 1991b, and 1992).

2.5 REGULATORY HISTORY

In August 1980, the Braidwood facility filed a Notification of Hazardous Waste Activity form as a generator and treatment, storage, or disposal (TSD) facility and was assigned EPA Identification

Number ILD 000 806 505. The notification listed F001 and F002 waste codes (CECO 1980). In October 1982, the facility informed EPA that this notification was erroneously filed and that the facility will not be submitting a Part A permit application because it is not a TSD facility (CECO 1982).

However, in October 1990, the facility filed a Part A permit application that listed the process code for a container storage unit (S01) with a capacity of 2,200 gallons (CECO 1990). The S01 process code referred to the facility's Mixed Waste CSA (SWMU 1). At the time of the VSI, the Braidwood facility had not submitted a Part B permit application for SWMU 1 and was operating as an interim status TSD facility.

Limited information about RCRA compliance evaluation inspections (CEI) at the facility is available in EPA and IEPA files. During its review of these files, PRC found no documentation of outstanding RCRA CEI issues at the facility.

The Braidwood facility has three air permits, one NPDES permit, and three land application permits that are discussed below.

The facility has air permits for its radioactive waste volume reduction system, auxiliary boilers and various storage tanks, and for open burning of materials for firefighting training. The permit for the radioactive waste volume reduction system (Application No. 82110055; ID No. 197816AAB BRDWVRS) regulates the operation of a fluidized bed dryer and a fluidized bed dry waste incinerator. According to facility representatives, the fluidized bed dryer and incinerator have only been operated for a total of 2 weeks, on two different occasions, for testing with noncontaminated materials. The dryer and incinerator are not currently used because their operation is not cost-effective (PRC 1994a). This permit was reissued on February 21, 1992, and will expire on March 4, 1997 (IEPA 1992a). Fluidized bed dryer and dry waste incinerator are not considered a SWMU in this report because they manage only radioactive waste, which is regulated by NRC.

The air permit for the auxiliary boilers and storage tanks (Application No. 79020011; ID No. 197816AAB) regulates the operation of two Fuel Oil No. 2-fired auxiliary boilers; four diesel-fired generators; seven storage tanks used to store Fuel Oil No. 2, four storage tanks used to store turbine

oil, one storage tank used to store diesel fuel, and two storage tanks used to store gasoline; and one lime silo with a baghouse filter. This permit was issued on May 28, 1992, and will expire on September 7, 1994 (IEPA 1992b).

The air permit for open burning (Application No. B9307018; ID No. 197816) regulates open burning of 350 gallons of gasoline, 150 pounds of propane, 250 gallons of Distillate Oil No. 2, 350 pounds of wood and straw, and 100 pounds of paper per session of firefighting training. This permit was issued on October 18, 1993, and will expire on October 2, 1994 (IEPA 1993b).

PRC found no documentation of noise or odor complaints from area residents.

The Braidwood facility's IEPA NPDES permit (IL0048321) regulates the discharge of facility's effluent waters to the Kankakee and Mazon rivers. This permit was issued on January 29, 1991; and will expire on September 1, 1995 (IEPA 1991a). The facility's NPDES discharges to the Kankakee and Mazon Rivers are summarized below.

DISCHARGE NUMBER	DISCHARGE NAME	RECEIVING RIVER
001	Cooling Pond Blowdown Line	Kankakee
001(a)	WWTP Effluent	
001(b)	Sewage Treatment Plant Effluent	
001(c)	Radioactive Waste Treatment System Effluent	
001(d)	Demineralizer Regenerant Waste	
001(e)	Intake Screen Backwash	
002	North Site Stormwater Runoff Basin	Mazon
003	South Site Stormwater Runoff Basin	

According to the NPDES permit, the discharge from Cooling Pond Blowdown Line [Discharge No. (DN) 001) is to be monitored daily for temperature, once in a week for pH, and twice in a month for total residual chlorine. The discharge of WWTP Effluent [DN 001(a)], and from Radioactive Waste Treatment System Effluent [DN 001(c)] and North Site Stormwater Runoff Basin (DN 002) is to be

monitored weekly for total suspended solids (TSS) and oil and grease. The discharge of Sewage Treatment Plant Effluent [DN 001 (b)] is to be monitored weekly for TSS, biochemical oxygen demand for five days, and fecal coliform. The discharge from Demineralizer Regenerant Waste [DN 001(d)] is to be monitored weekly for TSS.

During its file review, PRC identified no documentation of outstanding NPDES compliance issues.

The land application permits regulate the disposal of sewage and lime sludge from the facility. Land Application Permit No. 1991-SC-4184 regulates the annual application of up to 8 dry tons of aerobically digested sewage sludge to 8 acres of land. This permit was renewed on December 13, 1991, and will expire on November 1, 1996 (IEPA 1991b). Farms used for land application under this permit are not considered a SWMU in this report because they are outside the facility boundaries.

Land Application Permit No. 1992-SC-1078 regulates the annual application of up to 1 dry ton of water treatment plant lime sludge to 64 acres of land. This permit was issued on August 14, 1992, and will expire on August 1, 1997 (IEPA 1992c). Farms used for land application under this permit are not considered a SWMU in this report because they are outside the facility boundaries.

Land Application Permit No. 1992-SC-1078-1 regulates the application of up to 4 tons of water treatment plant lime sludge per acre per year. This permit was issued on October 14, 1993, and will expire on August 1, 1997 (IEPA 1993a).

The Braidwood facility operates three 10,000-gallon, fiberglass-reinforced USTs. These USTs store diesel fuel, unleaded gasoline, and leaded gasoline. According to facility representatives, all three USTs passed the leak test conducted in 1993 and will be upgraded in 1998.

PRC found no documentation of CERLCA (Superfund) activities at the Braidwood facility.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and groundwater in the vicinity of the facility.

2.6.1 Climate

The climate in Will County is typically continental with cold winters, warm summers, and frequent short periods of fluctuations in temperature, humidity, cloudiness, and wind direction. The average daily temperature is 50.9 °F. The lowest average daily temperature is 23.8 °F in January. The highest average daily temperature is 74.0 °F in July (Ruffner 1978).

The total annual precipitation for the Braidwood facility area is between 34 and 35 inches. The mean annual lake evaporation for the area is about 31 inches. The net annual precipitation is 28.4 inches. The 1-year, 24-hour maximum rainfall is 6.7 inches (Ruffner 1978).

The prevailing wind direction is from the west. Average wind speed is highest in March at 11.8 miles per hour. The average wind speed is 10.3 miles per hour from a westerly direction (Ruffner 1978).

2.6.2 Flood Plain and Surface Water

The Braidwood facility is not located within a 100-year flood plain (PRC 1994b). The nearest surface water body is the facility's main cooling pond (see Figure 3). This on-site pond occupies 2,537 acres and is used for supplying cooling water to the facility. The pond is also used for public recreation under the control of the Illinois Department of Conservation. The Kankakee River, located 3 miles east of the facility, receives treated wastewaters discharged from the facility and supplies makeup water to the facility. This river is also used as a drinking water supply for the town of Wilmington, located about 3 miles downstream and north of the facility's outfall locations. The Kankakee River also receives discharge from Horse Creek, which is located about 3 miles east of the facility. The Mazon River, located about 1 mile southwest of the facility, receives discharges from the facility's Outdoor Oil Skimmers (SWMU 7) and from Granary, Crane, Reddick Run, and East Fork Creeks,

which are located south of the facility. The Mazon River is used for recreational purposes and discharges to the Illinois River. In addition, there are several ponds near the facility (USGS 1980).

2.6.3 Geology and Soils

The Braidwood facility is located within the Kankakee Plain portion of the Till Plains section of the Central Lowlands Province. This section is characterized by widespread, variable deposits of glacial till, outwash, and lacustrine sediments assigned to the Wisconsinan, Illinoian, Kansan, and Nebraskan glacial deposits (CECO 1994).

The majority of the unconsolidated drift in the Braidwood area was deposited during the Wisconsinan Glaciation period of the Woodfordian Age. The Dolton Member of the Equality Formation serves as glacial veneer covering most of the Braidwood area. The Equality Formation averages approximately 45 feet thick in the local area and may be as much as 100 feet thick in some buried valleys. The Dolton Member mainly consists of sands with local beds of silt and gravel, most of which was deposited as beaches and bars. These sands are mainly medium grained and poorly sorted and contain a minor silt component. These sands eventually contain more silt where they grade with the Camri Member. Underlying these coarse grained deposits, where present, is the Wedron Formation of clay tills. Where the Wedron is not present, the underlying Pennsylvanian bedrock is exposed (PESI 1991).

Strip mining activities throughout the Braidwood area have exposed the Pennsylvanian System, which consists of coal formations and, more specifically, Cyclothem Sequences. The Cyclothems consist of alternating nonmarine and marine sequences (silt, sandstone, and limestone) deposited as the sea levels fluctuated during Pennsylvanian time (PESI 1991).

Surface soil types present in the Braidwood area are the Watseka loamy fine sand (Unit No. 49), the Bloomfield fine sand (Unit No. 53), the Plainfield sand (Unit No. 54), the Maumee fine sandy loam (Unit No. 89), the Ade loamy fine sand (Unit No. 98), the Pittwood fine sandy loam (Unit No. 130), and the Canisteo loam (Unit No. 347). The prime farmland soils of the Braidwood area include the Maumee fine sandy loam, the Pittwood fine sandy loam, and the Canisteo loam (CECO 1994).

2.6.4 Groundwater

The Braidwood area has two primary aquifer systems: the upper Pennsylvanian sandstone, limestone, and dolomite bedrock aquifers, and the deeper Ordovician limestone and dolomite bedrock aquifer. In addition, a shallow sand aquifer is present in the Braidwood facility area. The depth to the Pennsylvanian bedrock aquifer is about 44 feet, to the Cambro-Ordovician sequence is about 300 feet, and to the shallow sand aquifer is about 20 feet deep (PESI 1991).

Groundwater in the shallow aquifer occurs under water table conditions, which is recharged locally by precipitation. Groundwater from the shallow aquifer is discharged into local surface streams and strip mine pits, to the underlying bedrock, and to pumping wells. Well yields from this aquifer are in the range of 2 to 5 gpm, which is a rate suitable for domestic or farm use only.

The area surrounding the Braidwood facility recharges the shallow aquifer; therefore, the groundwater flows radially in all directions. Only two registered domestic wells are present within 1.5 miles of the facility and both wells obtained their water supply from the Pennsylvanian Sandstone aquifer. The town of Braidwood, approximately 1.5 miles north of the facility, uses groundwater as its water supply. CECO has an on-site industrial well located in the northern part of the facility. This well is currently not used (PESI 1991).

A cement-bentonite slurry trench has been installed around the Braidwood facility, through surface fill, the Parkland sand, and the Equality Formation. This trench is anchored 2 feet into the silty clay glacial till of the Wedron Formation, where present, otherwise it is set 2 feet into the bedrock. This cement bentonite slurry trench creates a subsurface hydraulic barrier to groundwater movement in the shallow aquifer (PESI 1991).

2.7 RECEPTORS

Braidwood facility's 2,537-acre main cooling pond is the nearest surface water body. This pond is used to supply cooling water to the facility. The pond is also used for recreational purposes. The facility obtains its drinking water and makeup water supply from the Kankakee River. Effluent from the facility's WWTP is discharged to the Kankakee river at a location about 3 miles east of the

facility. The town of Wilmington, located about 3 miles downstream and north of the facility, obtains its drinking water from the Kankakee River.

Groundwater in the shallow aquifer flows radially away from the site. However, the movement of groundwater from the facility area is restricted by a cement bentonite slurry surrounding the facility. Groundwater from the shallow aquifer is not used as drinking water supply in the immediate vicinity of the facility. The town of Braidwood, located about 1.5 miles north of the facility, uses groundwater as its primary source of drinking water.

The nearest residences are located within 0.25 mile of the northeastern corner of the facility, in the village of Godley. The town of Braidwood is about 1.5 miles north of the facility. However, the distances of these residences are more than 0.5 to 2 miles from the active structures of the facility (USGS 1980).

Facility access is tightly restricted. The main buildings are located within a "protected area" surrounded by a double-fenced, 35-foot isolation zone that is monitored by surveillance cameras. Access to areas within the protected area that contain equipment essential to safe plant operation is controlled by security doors. Security badges or key cards are used to grant access to various locations within the plant. Additionally, the responsibilities of an on-site security staff include the following: conducting routine patrols, controlling access of personnel and vehicles to the protected area, performing delivery and pick-up escort duties, monitoring security console activities, and responding to security alarms (CECO 1994).

Wetland areas of Lacustrine, Palustrine, and Riverine systems are located on and near the facility property. Lacustrine wetlands are of Limnetic subsystem and Unconsolidated Bottom (UB) class, and occupy areas smaller and greater than 2 acres. Palustrine wetlands are of UB, Emergent, and Forested classes and occupy areas smaller and greater than 2 acres. Riverine wetlands are of Lower Perennial subsystem and UB class and mostly occupy areas smaller than 2 acres (USDI 1981).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the 10 SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 4 shows the SWMU locations.

SWMU 1 **Mixed Waste CSA**

Unit Description: This unit manages closed containers of waste in a concrete storage building that is located in the northwestern quadrangle of the facility. The storage building measures about 35 feet wide by 35 feet deep by 8.5 feet high. The building is steel framed and has reinforced concrete masonry walls, precast concrete roof panels, and an 8-inch-thick concrete floor that is covered with impervious polyacrylate terrazzo.

Date of Startup: This unit began operation in October 1990.

Date of Closure: This unit is currently active for greater than 90-day storage of mixed waste.

Wastes Managed: This unit manages mixed waste (F001). According to facility representatives, mixed waste (F001) is no longer generated at the Braidwood facility. However, because of the difficulties associated with shipping mixed waste to an appropriate disposal facility, this waste remains on site and has been stored for greater than 90 days.

Release Controls: Waste in two closed 55-gallon drums is stored in secondary containers of polyethylene. The secondary containers have (1) sliding, two-part cover to provide safe access to drums; (2) waterproof closure by having "over-snap" lids to prevent entry of rainwater; and

(3) translucent side walls to allow visual detection of a leak without removing the lids. The secondary containers are surrounded by absorbent booms and are stored in a concrete building that has no drain.

Observations: PRC observed the area inside and outside the concrete building at this unit. Out of three secondary containers stored at the unit, only two had mixed waste (F001) in closed drums. According to facility representatives, one drum was full and the other was partially full. Total volume of mixed waste in both drums was about 85 gallons. No evidence of release was noted (see Photographs No. 1 and 2).

SWMU 2 **Hazardous Waste CSA**

Unit Description: This unit manages closed containers of hazardous and nonhazardous wastes in a storage building that is located in northern part of the facility. The storage building measures about 50 feet wide by 30 feet deep by 10 feet high. The building is wood framed and has a concrete floor, a 6-inch-high concrete berm, and two entrances with ramps over the berm. Before the startup of this unit, hazardous waste was generated only because of inventory control and was not managed on site (PRC 1994c).

Date of Startup: This unit began operation in August 1989.

Date of Closure: This unit is currently active for less than 90-day storage of hazardous waste and for storage of nonhazardous waste.

Wastes Managed: This unit manages hazardous and nonhazardous wastes. Hazardous wastes managed at this unit include spent chlorinated solvents (F002 and F003), spent nonchlorinated solvents (D001, D018, and D039), freon contaminated oil and water (F002 and F003), and nonroutine

	wastes (various waste codes). Nonhazardous wastes managed at this unit include spent resins, spent charcoal, and waste grease.
Release Controls:	Waste at this unit is managed in closed 55-gallon drums that are stored on a concrete floor with a berm and no drain. The unit has ramps over the berm. Absorbent material, spill control booms, and overpacks are present at the unit.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the area inside and outside the building at this unit. At the time of VSI, one 55-gallon drum each of waste fryquel (nonhazardous), waste grease (nonhazardous), and spent charcoal (nonhazardous) was stored at this unit. No evidence of release was noted (see Photograph Nos. 3 and 4).
SWMU 3	**Used Oil Storage Pad**
Unit Description:	This unit consists of an outdoor, uncovered, approximately 20-foot by 20-foot concrete area located southwest of the facility's turbine building. The concrete unit has a berm and a ramp over the berm at the entrance. A drain in the unit leads to one of the Outdoor Oil Skimmers (SWMU 7). This unit is surrounded by a 6-foot-high, chain-link fence and has a locked door.
Date of Startup:	This unit began operation in February 1986.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous used oil in 55-gallon steel drums before off-site shipment.

Release Controls:	Waste at this unit is managed in closed 55-gallon drums that are stored on a concrete floor with a berm. A drain in the floor leads to one of the Outdoor Oil Skimmers (SWMU 7) located in the northeastern quadrangle of the facility.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed that four drums of nonhazardous waste oil and several empty drums were stored in this unit. Much of the concrete pad and surrounding area was covered with snow. No evidence of release was noted (see Photograph No. 5).

SWMU 4 **Used Oil Storage Tank**

Unit Description:	This unit is a 1,000-gallon, steel AST located at level 601 in approximately the middle of the turbine building. The AST is located over a concrete floor that has a concrete berm and a drain. The drain in the concrete floor leads to the floor drain system in the turbine building.
Date of Startup:	This unit began operation in February 1986.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous used oil.
Release Controls:	The 1,000-gallon, steel AST is located indoors on a bermed concrete floor. The drain in the concrete floor leads to the floor drain system in the turbine building. All the wastewater from this floor drain system is treated in the WWTP (SWMU 8).

History of Documented Releases: No releases from this unit have been documented.

Observations: PRC observed the general area of this unit. No evidence of release was noted (see Photograph No. 6).

SWMU 5 **Hazardous Waste SAAs**

Unit Description: This unit consists of four SAAs. Each SAA occupies an area of about 3 feet by 3 feet and is used to accumulate up to 55 gallons of hazardous waste in a steel drum. The drums are stored inside closed metal cabinets. The SAAs are located indoors on a concrete floor. The steel drums are closed when not receiving wastes. The metal cabinets are equipped with spill containment pans. At the time of the VSI, SAAs were located on level 601 of the turbine building. A metal cabinet at one of the SAAs stored spill control materials.

Date of Startup: This unit began operation in August 1988.

Date of Closure: This unit is currently active for accumulation of hazardous wastes.

Wastes Managed: This unit manages spent chlorinated solvents (F002 and F003), spent nonchlorinated solvents (D001, D018, and D039), and freon-contaminated oil and water (F003 and F003).

Release Controls: Waste at this unit is managed in closed 55-gallon drums that are stored in closed metal cabinets which are equipped with spill containment pans. One of the metal cabinets stores spill control material. Floor drains in the area of this unit lead to the floor drain system in the turbine building.

History of Documented Releases: No releases from this unit have been documented.

Observations:	PRC observed the area of SAAs. No evidence of release was noted (see Photograph Nos. 7 and 8).
SWMU 6	**Indoor Oil Skimmer**
Unit Description:	This unit has an oil and water separator located at level 569 near the center of the turbine building. The unit is mounted on a metal frame about 5-feet-tall and located on a concrete floor. The unit uses a tygon tube to separate oil and wastewater from the floor drain system in the turbine building. Separated oil is accumulated in a 55-gallon steel drum.
Date of Startup:	This unit began operation in February 1986.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages wastewater and nonhazardous used oil from the floor drain system in the turbine building.
Release Controls:	Waste is accumulated in a 55-gallon drum stored on a concrete floor. When full, the drum is transferred to the Used Oil Storage Pad (SWMU 3). The drains in the concrete floor lead to the WWTP (SWMU 8).
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the general area of this unit. At the time of VSI, there were two oil and water separators at this unit. According to facility representatives, the older oil and water separator was being replaced with the new one. No evidence of release was noted (see Photograph No. 9).

SWMU 7	**Outdoor Oil Skimmers**
Unit Description:	This unit consists of three concrete oil and water separators: one located near the northwest side of the turbine building, one in the switchyard northeast of the facility, and one near the water intake from the Kankakee River. All three oil and water separators are buried below grade and have an oil accumulation chamber and a pump for pumping oil to tankers used to ship the oil off site. The outside dimension of the oil and water separator located near the northwest side of the turbine building are approximately 59 feet by 31.5 feet by 12 feet. The outside dimensions of the other two oil and water separators are approximately 19 feet by 12 feet by 12 feet.
Date of Startup:	This unit began operation in early 1983.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages stormwater and nonhazardous used oil.
Release Controls:	This unit is located below grade and is constructed of concrete. The level of oil accumulated within the oil accumulation chamber is measured monthly. Oil is transported off site when its depth in the oil accumulation chamber reaches 6 inches. The unit has no other form of release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the aboveground portions of this unit, which were covered with snow. No evidence of release was noted (see Photograph No. 10).

SWMU 8	**WWTP**
Unit Description:	This unit is located indoors in a dedicated building in the southeastern quadrangle of the facility. Major components of this unit include: a concrete, flow equalization tank; an oil and water separator; a used oil accumulation AST; a quadricell for flocculation; two charcoal filters; and an effluent storage tank. Sludge generated during wastewater treatment at this unit is managed in the WWTP Sludge Pond (SWMU 9).
Date of Startup:	This unit began operation in August 1985.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages wastewaters from equipment and floor drains in the turbine building. These wastewaters are not characterized prior to treatment; however, the discharge from this unit (SWMU 8) is regulated under the facility's NPDES permit (see Section 2.5).
Release Controls:	The components of this unit are located indoors on a concrete floor.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the various components of this unit and noted that the interior of the building housing this unit was extremely clean. No evidence of release was noted (see Photographs No. 11 and 12).
SWMU 9	**WWTP Sludge Pond**
Unit Description:	This unit is an approximately 35 feet long, 175 feet wide, and 7 feet deep, clay-lined, 500,000-gallon pond. The pond is located west of

	the turbine building and adjacent to the Lime Sludge Pond (SWMU 10).
Date of Startup:	This unit began operation in August 1985.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous sludge from the WWTP (SWMU 8).
Release Controls:	Waste is stored in a clay-lined pond. No other form of release controls are present.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the pond and its surrounding area. Most of the pond was frozen and covered with snow. No evidence of release was noted (see Photograph No. 13).
SWMU 10	**Lime Sludge Pond**
Unit Description:	This unit is an approximately 35 feet long, 175 feet wide, and 7 feet deep, clay-lined, 500,000-gallon pond. The pond is located west of the turbine building and the WWTP Sludge Pond (SWMU 9).
Date of Startup:	This unit began operation in mid 1983.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous lime sludge generated during water treatment at the facility.

Release Controls:	Waste is stored in a clay-lined pond. No other form of release controls is present.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	PRC observed the pond and its surrounding area. Most of the pond was frozen and covered with snow. No evidence of release was noted (see Photograph No. 14).

4.0 AREAS OF CONCERN

PRC identified no AOCs during the PA/VSI.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 10 SWMUs and no AOCs at the Braidwood facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. Following are PRC's conclusions and recommendations for each SWMU. Table 3, located at the end of this section, summarizes the SWMUs at the facility and the recommended further actions.

SWMU 1 **Mixed Waste CSA**

Conclusions: This unit manages mixed waste in closed 55-gallon drums that are inside polyethylene secondary containers. The secondary containers are surrounded by spill control booms and are stored inside a concrete building that has no drain. The building itself is located outdoors. No releases from this unit have been documented. The potential for release to all environmental media is low.

Recommendations: PRC recommends no further action at this time.

SWMU 2 **Hazardous Waste CSA**

Conclusions: This unit manages closed containers of hazardous and nonhazardous wastes inside a storage building. The building is located outdoors, has a concrete floor, a 6-inch-high concrete berm, a ramp over the berm at the building entrances, and no drain. No releases from this unit have been documented. The potential for release to all environmental media is low.

Recommendations: PRC recommends no further action at this time.

SWMU 3 **Used Oil Storage Pad**

Conclusions: This outdoor unit manages closed containers of nonhazardous used oil on a concrete pad. The pad is surrounded by a concrete berm. The drain in the floor leads to one of the Outdoor Oil Skimmers (SWMU 7) located in the northeast quadrangle of the facility. No releases from this unit have been documented. The potential for release to all environmental media is low.

Recommendations: PRC recommends no further action at this time.

SWMU 4 **Used Oil Storage Tank**

Conclusions: This indoor unit manages nonhazardous used oil. The unit has a concrete floor, a concrete berm, and a drain that leads to the floor drain system in the turbine building. Wastewater from this floor drain system is treated in WWTP (SWMU 8). No releases from this unit have been documented. The potential for release to all environmental media is low.

Recommendations: PRC recommends no further action at this time.

SWMU 5 **Hazardous Waste SAAs**

Conclusions: Each SAA constituting this unit accumulates up to 55-gallons of hazardous wastes in closed containers located indoors on a concrete floor. Containers of waste are stored inside closed, metal cabinets that have a spill collection pan. No releases from this unit have been documented. The potential for release to all environmental media is low.

Recommendations: PRC recommends no further action at this time.

SWMU 6	**Indoor Oil Skimmer**
Conclusions:	This indoor unit manages nonhazardous used oil in a 55-gallon drum. The drum is located on a concrete floor and is transferred to the Used Oil Storage Pad (SWMU 3) when full. No releases from this unit have been documented. The potential for release to all environmental media is low.
Recommendations:	PRC recommends no further action at this time.
SWMU 7	**Outdoor Oil Skimmers**
Conclusions:	The Outdoor Oil Skimmers are located below grade and are constructed of concrete. This unit manages stormwater runoff. Discharge from the unit is regulated under an NPDES permit; no outstanding NPDES compliance issues were identified during the PA/VSI. No releases from this unit have been documented. The potential for release to all environmental media is low.
Recommendations:	PRC recommends no further action at this time.
SWMU 8	**WWTP**
Conclusions:	All elements comprising this unit are located indoors on a concrete floor. The unit discharges effluent to the Kankakee and Mazon Rivers under an NPDES permit; no outstanding NPDES compliance issues were identified during the PA/VSI. No releases from this unit have been documented. The potential for release to all environmental media is low.
Recommendations:	PRC recommends no further action at this time.

SWMU 9	**WWTP Sludge Pond**
Conclusions:	This unit manages nonhazardous sludge generated by the WWTP (SWMU 8). These wastes are managed in an outdoor, clay-lined pond. No releases from this unit have been documented. The potential for release to all environmental media is low.
Recommendations:	PRC recommends no further action at this time.
SWMU 10	**Lime Sludge Pond**
Conclusions:	This unit manages nonhazardous lime sludge generated during water treatment at the facility. This waste is managed in an outdoor, clay-lined pond. No releases from this unit have been documented. The potential for release to all environmental media is low.
Recommendations:	PRC recommends no further action at this time.

TABLE 3

SWMU SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Mixed Waste CSA	October 1990 to present	None	No further action
2. Hazardous Waste CSA	August 1989 to present	None	No further action
3. Used Oil Storage Pad	February 1986 to present	None	No further action
4. Used Oil Storage Tank	February 1986 to present	None	No further action
5. Hazardous Waste SAAs	August 1988 to present	None	No further action
6. Indoor Oil Skimmer	February 1986 to present	None	No further action
7. Outdoor Oil Skimmers	Early 1983 to present	None	No further action
8. WWTP	August 1985 to present	None	No further action
9. WWTP Sludge Pond	August 1985 to present	None	No further action
10.Lime Sludge Pond	Mid 1983 to present	None	No further action

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APPENDIX A

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

(12 Pages)

VISUAL SITE INSPECTION SUMMARY

COMMONWEALTH EDISON COMPANY
BRAIDWOOD NUCLEAR POWER STATION
BRAIDWOOD, ILLINOIS 60407
ILD 000 806 505

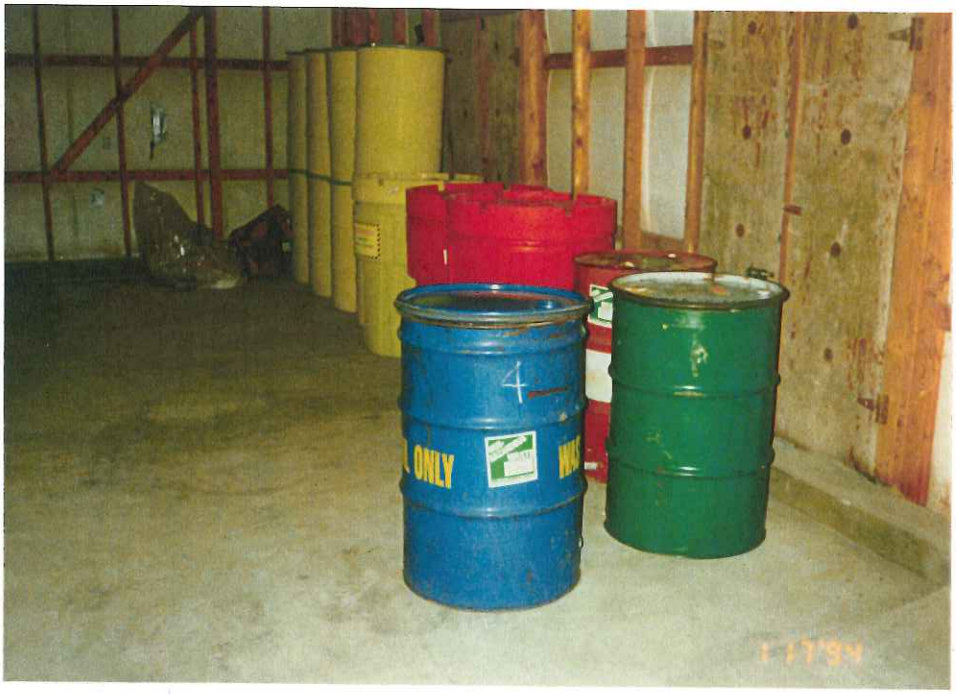
Date:	January 17, 1994
Primary Facility Representatives:	Joseph Tidmore, System Test Engineer Patricia Boyle, Hazardous Materials Coordinator
Representative Telephone No.:	(815) 458-2801
Additional Facility Representatives:	David J. Miller, Technical Services Superintendent Dough Yowell, Principal Biologist, Environmental Services Louis E. Magers, Environmental Engineer, Environmental Services
Inspection Team:	Manoj Mishra, PRC Environmental Management, Inc. (PRC) Cathy Collins, PRC
Photographer:	Manoj Mishra, PRC
Weather Conditions:	Sunny, snow cover, about 5°F
Summary of Activities:	The PRC inspection team arrived at the facility at 10:25 a.m. The visual site inspection (VSI) began at 10:45 a.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with copies of requested documents. The VSI tour began at 2:10 p.m. At the time of the VSI, the facility was in full operation. During the tour, PRC viewed waste generation areas and the following solid waste management units (SWMU): the Mixed Waste Container Storage Area (CSA) (SWMU 1), the Hazardous Waste CSA (SWMU 2), the Used Oil Storage Pad (SWMU 3), the Used Oil Storage Tank (SWMU 4), the Hazardous Waste Satellite Accumulation Areas (SAA) (SWMU 5), the Indoor Oil Skimmer (SWMU 6), the Wastewater Treatment Plant (WWTP) (SWMU 8), the WWTP Sludge Pond (SWMU 9), and the Lime Sludge Pond (SWMU 10). PRC also viewed the area above one of the Outdoor Oil Skimmers (SWMU 7) and the farm lands where lime sludge is applied.

The tour concluded at 3:45 p.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed and the inspection team left the facility at 4:15 p.m.

Photograph No. 1 Location: SWMU 1
Orientation: North Date: January 17, 1994
Description: This photograph shows mixed waste drums in secondary containers. Secondary container on the left is empty.

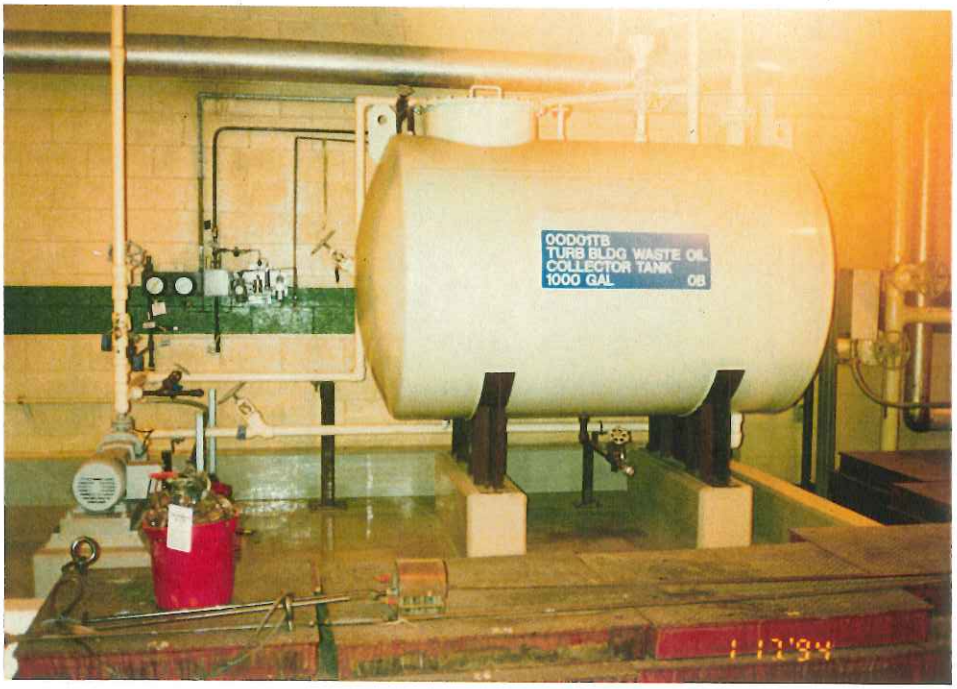
Photograph No. 2 Location: SWMU 1
Orientation: North Date: January 17, 1994
Description: The mixed waste drum in the secondary container on the right is full, whereas the drum in secondary container on the left is about half full. Note the spill control booms surrounding the secondary containers and the absorbent pads stored on the right.

Photograph No. 3 Location: SWMU 2
Orientation: East Date: January 17, 1994
Description: This photograph shows hazardous waste container storage area. Drums on the right are empty and three drums on the left contain nonhazardous waste. Note the spill control material in the left corner. The closet on the left also contains spill control material.



Photograph No. 4 Location: SWMU 2
Orientation: Northwest Date: January 17, 1994
Description: The Blue, green, and red 55-gallon tanks shown in this photograph contain nonhazardous waste. The two red and one yellow overpacks should be noted. The yellow overpack contains spill control booms. The yellow, 55-gallon drums are empty.

Photograph No. 5 Location: SWMU 3
Orientation: Northwest Date: January 17, 1994
Description: This photograph shows waste oil storage pad. Most of the drums on the pad are empty.



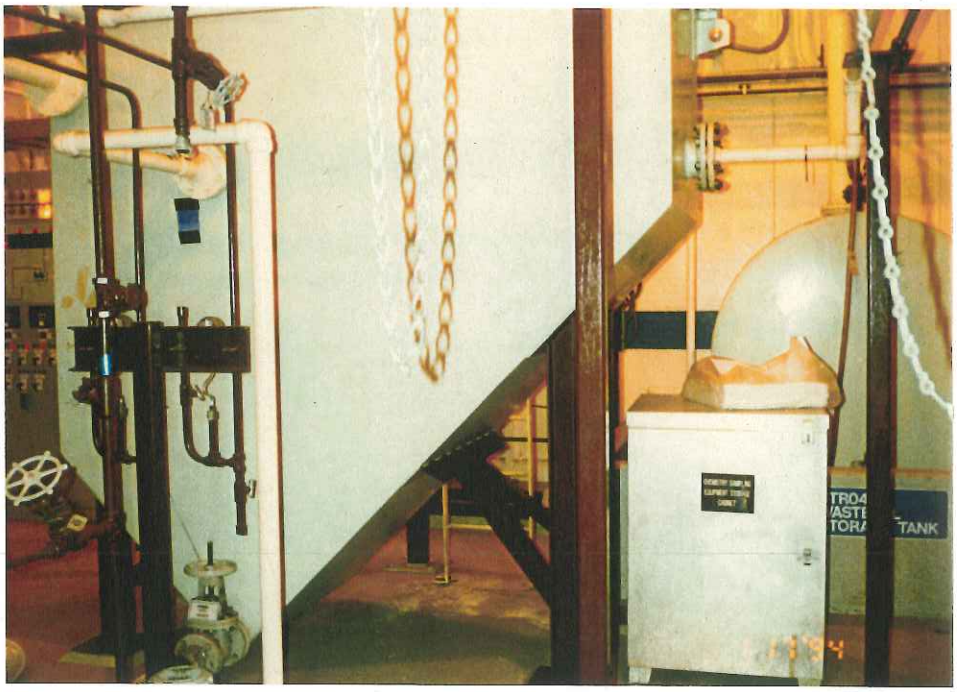
Photograph No. 6 Location: SWMU 4
Orientation: North Date: January 17, 1994
Description: This photograph shows the 1,000-gallon, aboveground, used oil storage tank at level 601 of the turbine building. Note the concrete floor and the berm.

Photograph No. 7 Location: SWMU 5
Orientation: North Date: January 17, 1994
Description: This photograph shows the satellite accumulation areas (SAA) for chlorinated and nonchlorinated solvents. The middle cabinet is the secondary container for a used oil 55-gallon drum and stores spill control material.

Photograph No. 8 Location: SWMU 5
Orientation: North Date: January 17, 1994
Description: This photograph shows the freon-contaminated oil and water SAA.

Photograph No. 9 Location: SWMU 6
Orientation: West Date: January 17, 1994
Description: This photograph shows the indoor oil skimmer (equipment on white frame). The oil skimmer on the right is being replaced by the one on the left. Note the used oil accumulation drum in the center.

Photograph No. 10 Location: SWMU 7
Orientation: Northwest Date: January 17, 1994
Description: This photograph shows the aboveground position of outdoor oil skimmer (underground) on the northeast of the turbine building. Red object in the middle is the oil pump.

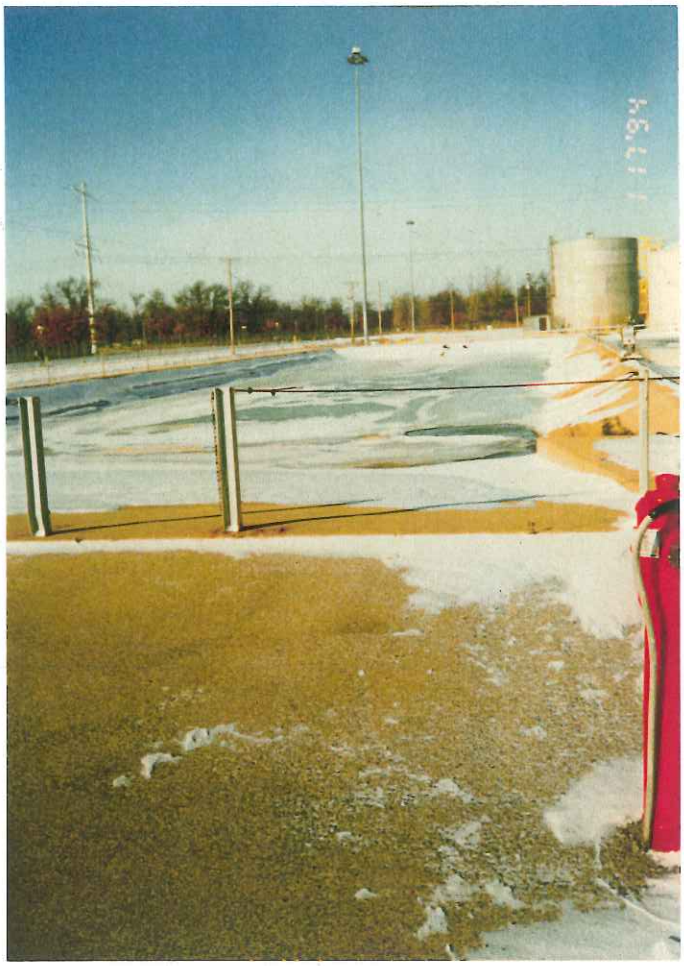


Photograph No. 11 Location: SWMU 8
Orientation: Southwest Date: January 17, 1994
Description: This photograph shows the oil skimmer and used oil accumulation tank inside the wastewater treatment plant.

Photograph No. 12 Location: SWMU 8
Orientation: Northwest Date: January 17, 1994
Description: This photograph shows the wastewater treatment plant. The cylindrical object to the right is the pump for discharging treated water to the pipes leading to the Kankakee River.

Photograph No. 13
Orientation: North
Description: This photograph shows the WWTP sludge pond.

Location: SWMU 9
Date: January 17, 1994



Photograph No. 14
Orientation: North
Description: This photograph shows the lime sludge pond.

Location: SWMU 10
Date: January 17, 1994

APPENDIX B

VISUAL SITE INSPECTION FIELD NOTES

(Nine Sheets)

Field Logbook No. ____________ Date ________

Project No. ____________

Project Name ____________

BRAIDWOOD NUCLEAR
STATION
7/18/94 [illegible]
SUNNY [illegible] 25° [illegible]
[illegible] COVER
- arrived at the facility
at [illegible] [illegible]
- [illegible] inside the buildings
at [illegible]: [illegible]
- Homesites the east [illegible]
their own drinking water wells
- Facility's drinking water
comes from the cooling water
pond and surface runoff
- sewage treated and discharged
to Kankakee River
- Sewage sludge was
disposed of as land application

Field Logbook No. ____________ Date ________

Project No. ____________

Project Name ____________

stopped in late 90 because
of above background radio
activity, EPA or IEPA not
informed because radioactive
material is controlled by NRC

- Sludge now [illegible]
not contaminated [illegible]
If contaminated [illegible] dried
disposal [illegible] waste
[illegible]

- generate [illegible] 6 [illegible]
transport [illegible]
[illegible]
- Plant area surface [illegible]
collected, goes through an oil separator
and then is disposed off to Kankaki

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

of Mazan Rivers.

- Plant owns ~ six sections (1 mile x 1 mile each) for land application
- sludge tanks (2) hold ~ 0.5 x 10⁶ gallons each
- oil storage sumps, pumps to an oil storage tank. Solar Environmental
- Turbine room has some oil leaks/spills from changing oil which is accumulated at satellite locations in 55-gallon drums then store it at waste oil accumulation pad.
- motor vehicle oil changes are done at a garage outside the plant property (Mazan Garage) in Mazan (~2 miles west)

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

- demineralizer resin + charcoal gets landfilled (Land & Lakes (South Chicago) and CDT landfill in Joliet
- occasional drum of grease from grease change in tandem's supporting the structure. SET environmental services takes the grease to Petrochem in Detroit.
- in addition to 3 permanent parts washer, other part washers can also be rented on as need basis.

3 UST's, leak testing every year passed last year, all 3 will have to be upgraded by 1998 for

Field L ook No. _____ Date _____

Project No. _____

Project Name _____

unknown reasons.
- 2 outside diesel oil storage tanks with berms (125,000 + 50,000 gallons)
- 4 for unit 1 and 2 for unit 2
- Ants for diesel oil (~25,000 gallons for unit 1, 50,000 each for unit 2)
- all of the above tanks are in self contained rooms in the basement, have water tight doors. Drains in these rooms go to fire and oil sumps.
- 1 turbine oil tank for each turbine. 15,000 gallons each (Lub oil) in main plant building
- elevation 401' is ground level where the lube tanks are

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

- inside diesel oil tanks at ~369' elevation
- out side ones are at 401'
- 2 additional turbine oil tanks (~20,000 gallons each) for make up purposes. Lated at ~369'
- diesel oil tanks are fuel tanks for emergency generation of electricity.
- minor transformer oil leaks but none major
- office trash is
- recycles office paper, number of dumpsters outside
- office trash is picked by Tri County Disposal, goes probably to Kankaki landfill

Field Logbook No. ______ Date ______

Project No. ______

Project Name ______

- satellite accumulation areas:
  - 2 for Hz waste (one for chlorinated,
  - * and one for non chlorinated solvents from occassional maintenance.
- oil and freon ~~tank~~ barrel
- mercury contaminated debries from occassional accidents (equip)
  - * elemental mercury is sold to DF Goldsmith in Evanston, IL (no generation rates! ~ one 55 gallon drum per 2 year)
- waste paint barrel (one 55 gallon drum per year), SET takes the waste paint

* Full drums go to Hazmat building

Field Logbook No. ______ Date ______

Project No. ______

Project Name ______

- 1,025 people today - all inclusive
- Trailer park coming in the NW corner of lake
- Residences on NW corner on smily road, ~ ½ mile from plant site
- 1980 estimate of population; : av density within 10 miles:
  87 people / sq mile

Z/O facility

Tour

Photo / NW

~~[illegible] cal~~

[illegible]

[illegible]

[illegible]

Field Logbook No. ______ Date ______

Project No. ______

Project Name ______

4" Drum of
used oil
on concrete
6" concrete
Ramp to
Entrance
10 [illegible] new
4 [illegible]
[illegible]
[illegible]
4 Empty Tan[illegible]
5 Lime [illegible]
6 Sludge Lagoon
7 S + O/W
Separator
in WWTS
Vault Uber
Concrete F1 001

Field Logbook No. ______ Date ______

Project No. ______

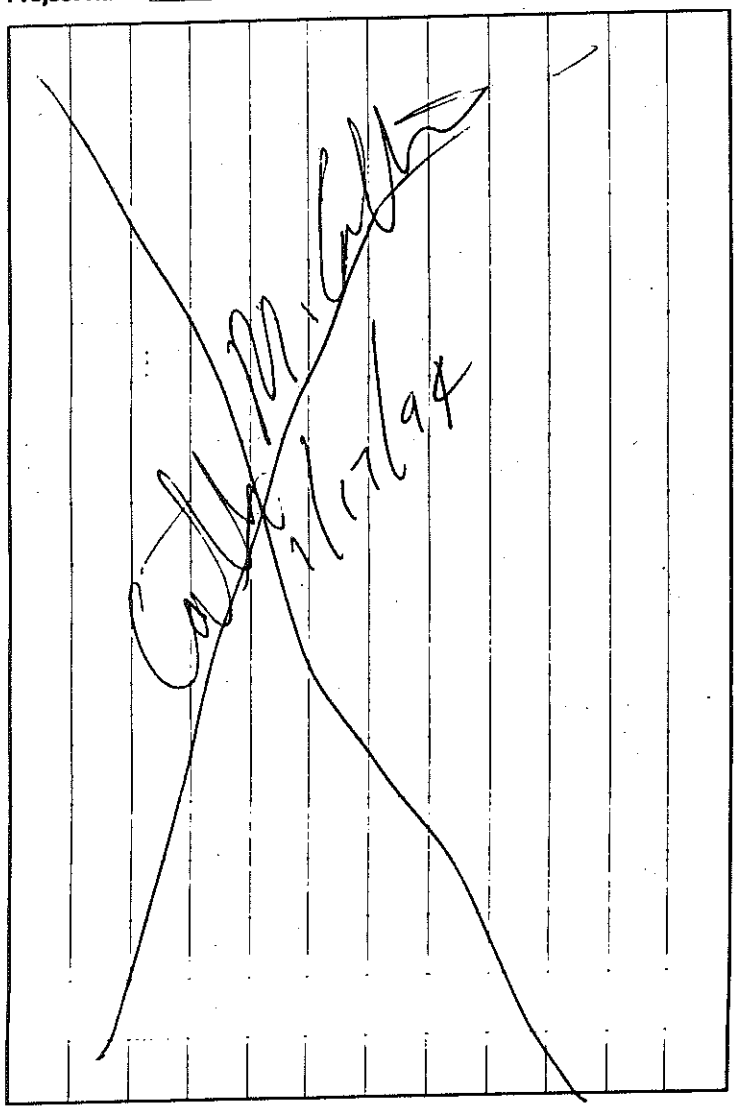
Project Name ______

8 Discharge W
Goes to Cooling
Pond
9 WWTU H
FILTER TANKS
10 Diesel Tank
11 N OIL
WATER Separator
w/ Storm water
outfall
12 HAZMAT AREA
13 25 X 45 ON
Concrete Loading
Dock on Both
SIDES OR
30 by 50 by 10
1 - Waste FYRQUEL

Field Log[illegible] No. _____ Date _____

Project No. _____

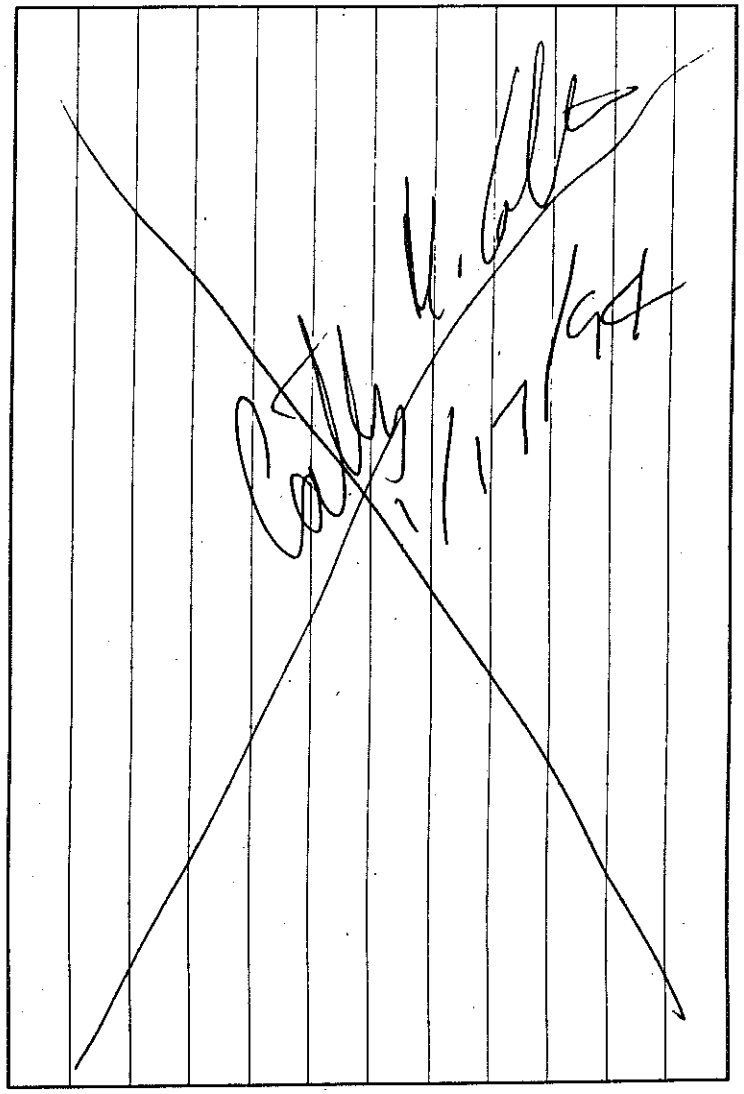
Project Name _____



Field Log Book No. _____ Date _____

Project No. _____

Project Name _____



Field Logbook No. ______ Date ______

Project No. ______

Project Name ______

1 WASTE GREASE
1 Charcoal

Use about
300 gallons of
hydraulic oil
yearly.
Use as a hydraulic
control system

Empty drum
and (overpack)
used as
alternate
oil stock
storage
3 Overpack

Field Logbook No. ______ Date ______

Project No. ______

Project Name ______

Spill cleanup
equipment
a " " 5
other parts
Removed also
14 MIXED WASTE STORAGE
15 " " "
35' by 50' x 9'
Linoleum Floor
(w/ 32 drums in
Secondary Containment
Storage System

Freon 113 (Fool)
Sludge from
a Tool Cleaning
machine

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

on Plastic
Liner
to Diesel
Storage
Tank + Emergency
North
17 N
1000-GALLON
WASTE OIL
TANK
ON CONCRETE
IN DIKED
AREA
18 W
Turbine Oil
Reservoirs

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

19 W
Oil/Water Separators
Oil Accumulation
area - Oil is in
55-Gallon drum
20 N SAA
Chlorinated
Solvent
FREQUEL-NH
Non-chlorinated
Solvent
21 E Roof
WASTE OIL
SOLVENT SAA
22 N Storage
Drums
before 1990

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____

NOT - Radiation
T23NE
Final Lift
Station

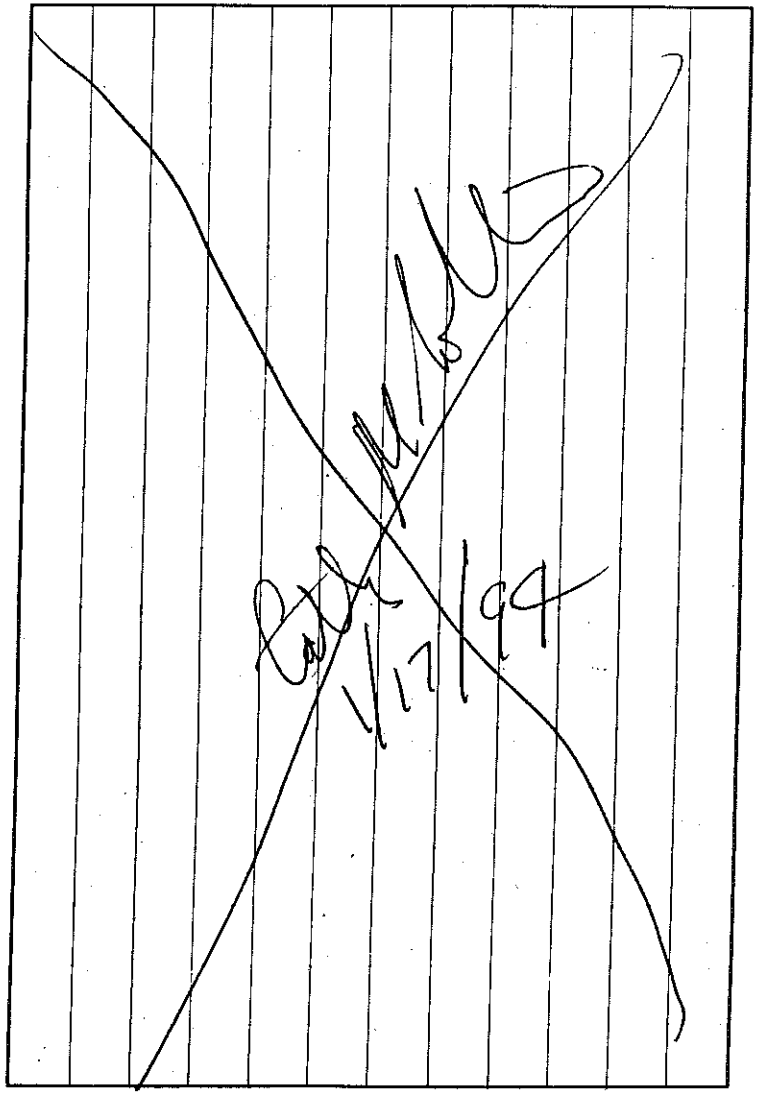
3:40 TOUR
OVER

Photo 24
SLUDGE
3:45 TO 4:15
DISCUSSED ADDITIONAL
INFORMATION -
DIESEL RELEASE
OUTBRIEF
4:30 PM
PRC OFF-SITE

Field Logbook No. _____ Date _____

Project No. _____

Project Name _____



1/17/94